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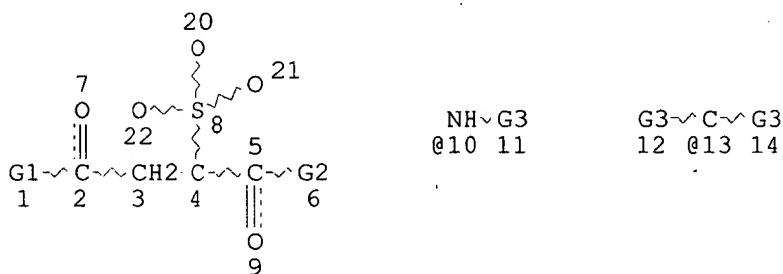
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 FILE LAST UPDATED: 30 Oct 2003 (20031030/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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 L69 STR



VAR G1=OH/NH2/10/13  
 VAR G2=O/N  
 VAR G3=O/C/HY  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE  
 L71 1491 SEA FILE=REGISTRY SSS FUL L69  
 L72 571 SEA FILE=REGISTRY ABB=ON PLU=ON ACETOLACTATE SYNTHASE?/CN- OR SULFURON?  
 L73 2955 SEA FILE=HCAPLUS ABB=ON PLU=ON L71  
 L74 5398 SEA FILE=HCAPLUS ABB=ON PLU=ON L72 OR ALS(L)INHIBIT? OR ACETOLACTATE (W) (SYNTHASE OR SYNTHETASE) OR ?SULFURON?  
 L75 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 AND L73

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L75 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:673773 HCAPLUS  
 DOCUMENT NUMBER: 139:192911  
 TITLE: Agrochemical preparations floating and moving on water surface, their manufacture, and application method  
 INVENTOR(S): Kamata, Yasuhiro; Innami, Haruki  
 PATENT ASSIGNEE(S): Aventis Cropscience GmbH, Germany  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003238306	A2	20030827	JP 2002-16808	20020125
PRIORITY APPLN. INFO.:			JP 2002-16808	20020125
AB The preps., which have bulk sp. gr. <1.0 and are rapidly spread over water surface after application, are manufd. by (a) premixing active ingredients, carriers, surfactants, and optionally other additives, (b) further mixing the compn. obtained in (a) with solid surfactants, (c) granulating the mixt., and (d) further molding the granules if necessary. The preps. may be packed by a water-sol. film. The preps. are applied at 2-20 kg/ha. This method provides granules having uneven interfacial tension which show increased moving property. Granules (sp. gr. 0.38) were manufd. by the claimed process from anilofos, <b>ethoxysulfuron</b> , Microsphere F 80 (hollow acrylonitrile polymers), Na lauryl sulfate, solid Na dialkyl sulfosuccinates, Na ligninsulfonate, Na bentonite, talc, and H2O. The granules packed with C 200AX (water-sol. PVA film) was applied to paddy to show rapid diffusion.				
IT 5138-18-1D, Sulfosuccinic acid, dialkyl esters, sodium salts 83055-99-6, <b>Bensulfuron-methyl</b> 98389-04-9, <b>Pyrazosulfuron</b> 120162-55-2, <b>Azimsulfuron</b> 122548-33-8, <b>Imazosulfuron</b> 126801-58-9, <b>Ethoxysulfuron</b> RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (manuf. of agrochem. preps. floating and rapidly moving on water surface after application)				

L75 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:42999 HCAPLUS  
 DOCUMENT NUMBER: 138:68344  
 TITLE: Lignin-based microparticles for controlled release of agrochemicals  
 INVENTOR(S): Asrar, Jawed; Ding, Yiwei  
 PATENT ASSIGNEE(S): Monsanto Technology, L.L.C., USA  
 SOURCE: U.S. Pat. Appl. Publ., 26 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003013612	A1	20030116	US 2002-191703	20020709
WO 2003005816	A1	20030123	WO 2002-US21722	20020710
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
 TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-304554P P 20010711

AB A method of producing lignin-based matrix microparticles for the controlled release of an agricultural active includes forming an emulsion of an org. soln. in an aq. soln., wherein the org. soln. contains a lignin deriv. and an agricultural active in a volatile org. solvent and the aq. soln. contains an emulsifier; and removing the org. solvent, thereby producing microparticles having a matrix comprising the lignin deriv. within which the agricultural active is distributed. Small, spherical lignin-based matrix microparticles that release an agricultural active at a controlled rate are described, as are plants and plant propagation materials that are treated with such microparticles.

IT 5138-18-1D, Butanedioic acid, sulfo, derivs.

RL: NUU (Other use, unclassified); USES (Uses)  
 (emulsifier in prepn. of lignin-based microparticles for controlled release of agrochems.)

IT 64902-72-3, Chlorsulfuron 79277-67-1,  
 Thifensulfuron 79510-48-8, Metsulfuron  
 82097-50-5, Triasulfuron 94125-34-5,  
 Prosulfuron 99283-01-9, Bensulfuron  
 111353-84-5, Ethametsulfuron 111991-09-4,  
 Nicosulfuron 113036-87-6, Primisulfuron  
 122931-48-0, Rimsulfuron 135397-30-7,  
 Halosulfuron 135990-29-3, Triflusulfuron  
 144651-06-9, Oxasulfuron

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL-  
 (Biological study); USES (Uses)  
 (lignin-based microparticles for controlled release of)

L75 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:396535 HCAPLUS

DOCUMENT NUMBER: 136:381759

TITLE: Pesticide compositions, their manufacture,  
 formulations, and direct application to flooded paddy  
 fields

INVENTOR(S): Fujita, Shigeki; Takayanagi, Toru; Kato, Susumu

PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002154901	A2	20020528	JP 2000-353887	20001121
CN 1353932	A	20020619	CN 2001-138546	20011116
US 2002098984	A1	20020725	US 2001-987969	20011116

PRIORITY APPLN. INFO.: JP 2000-353887 A 20001121

AB The compns. contain pesticides supported on grain nuclei coated with water-sol. polymers or water-swellaable substances. The compns. are directly applied to flooded paddy fields at 20-2000 g/10 are. IBP (42.5 parts) was supported on 57.5 parts Na polyacrylate-coated pumice and the

resulting compn. was packaged in bags of water-sol. poly(vinyl alc.) films at 100 g/bag. The compn. floated and uniformly spread over the water surface of a paddy.

IT **83055-99-6, Bensulfuron-methyl**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(pesticides supported on coated grain nuclei for direct application to flooded paddy fields)

IT **5138-18-1D, Sulfosuccinic acid, dialkyl esters, salts**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(surfactant; pesticides supported on coated grain nuclei for direct application to flooded paddy fields)

L75 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:122711 HCAPLUS  
DOCUMENT NUMBER: 136:146540  
TITLE: Floating type formulations of agricultural agents  
INVENTOR(S): Kamata, Yasuhiro; Innami, Haruki  
PATENT ASSIGNEE(S): Aventis Cropscience G.m.b.H., Germany  
SOURCE: PCT Int. Appl., 21 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002011538	A2	20020214	WO 2001-EP7947	20010710
WO 2002011538	A3	20020613		
W:	AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
JP 2002053405	A2	20020219	JP 2000-239324	20000808
AU 2001070626	A5	20020218	AU 2001-70626	20010710
PRIORITY APPLN. INFO.:			JP 2000-239324 A	20000808
			WO 2001-EP7947 W	20010710

AB Floating type formulations of agricultural agents contain active ingredients of agricultural agent, a porous carrier of which av. particle diam. is in the range of 10 to 100 .mu., a surfactant, a binder and a polymer of high water absorption. The formulations of the invention have low risk of running off of agricultural agents from a paddy field, due to excellent dispersion of the active ingredients of agricultural agents as well as quick sank of the carriers into the water after dispersion.

IT **126801-58-9, Ethoxysulfuron**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(floating type formulation of)

IT **5138-18-1D, Butanedioic acid, sulfo-, ester**

RL: MOA (Modifier or additive use); USES (Uses)  
(surfactant in floating type agricultural formulation)

L75 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:816370 HCAPLUS  
DOCUMENT NUMBER: 135:340483  
TITLE: Stable liquid herbicide formulations  
INVENTOR(S): Wuertz, Jochen; Maier, Thomas; Schnabel, Gerhard; Haase, Detlev  
PATENT ASSIGNEE(S): Aventis Cropscience G.m.b.H., Germany  
SOURCE: PCT Int. Appl., 44 pp.

DOCUMENT TYPE: CODEN: PIXXD2  
 LANGUAGE: Patent  
 German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001082693	A2	200111108	WO 2001-EP3879	20010405
WO 2001082693	A3	20020314		
W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10020671	A1	200111108	DE 2000-10020671	20000427
EP 1278416	A2	20030129	EP 2001-938088	20010405
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001010406	A	20030211	BR 2001-10406	20010405
JP 2003531838	T2	20031028	JP 2001-579586	20010405
US 2002016263	A1	20020207	US 2001-841820	20010425
PRIORITY APPLN. INFO.: DE 2000-10020671 A 20000427				
WO 2001-EP3879 W 20010405				

OTHER SOURCE(S): MARPAT 135:340483

AB The invention relates to stable liq. herbicide formulations contg. one or more derivs. of polycarboxylic acids and one or more **acetolactate synthase**-inhibiting herbicides. The polycarboxylic acids are sulfosuccinates and/or gemini surfactants.

IT **9027-45-6, Acetolactate synthase**  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (stable liq. formulations contg. **acetolactate synthase**-inhibiting herbicides)

IT **185119-76-0, Iodosulfuron**  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (stable liq. herbicide formulation contg.)

IT **5138-18-1D, Sulfosuccinic acid, esters and salts**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (stable liq. herbicide formulation contg.)

L75 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:869562 HCAPLUS  
 DOCUMENT NUMBER: 134:38268  
 TITLE: Pesticidal suspoemulsions for application to rice paddies  
 INVENTOR(S): Hirokawa, Takashi; Tsukuda, Kazuaki  
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000344604	A2	20001212	JP 2000-86232	20000327
PRIORITY APPLN. INFO.: JP 1999-92823 A 19990331				
AB Suspoemulsion formulations that do not adhere to crops and cause				

phytotoxicity and that have superior storage stability at low and high temps. and superior dispersivity and diffusivity in water and on the water surface contain water-insol. pesticide 0.1-30, water-insol. hydrocarbon solvent 0.1-50, water- and oil-insol. pesticide 0.1-30 wt., surfactant 1-15, arom. vinyl resin 1-20, and water 1-96.8 wt. parts. Thus, pyributicarb 10, benfuresate 8, diisopropyl naphthalene 38, sorbitan trioleate 0.6, and Soprophor BSU 1.0 wt. parts were melt blended, then added to a mixt. of sodium dioctyl sulfosuccinate 0.7, polyoxyethylene-polyoxypropylene block copolymer 1.0, propylene glycol 5.0, the preservative Bestcide 1000 0.05, the antifoaming agent SM 5512 0.01 wt. parts in 24.95 wt. parts water and emulsified (3 min, 10,000 rpm) to obtain an emulsion. Next, 1.7 parts **imazosulfuron** were added to a soln. of water 3.7, Soprophor BSU 0.05, sodium dioctyl sulfosuccinate 0.05, polyoxyethylene-polyoxypropylene block copolymer 0.05, and SM 5512 0.0 wt. parts to obtain a suspension. Finally, the obtained emulsion 89.4, the suspension 5.6, and styrene-acrylic acid copolymer 5 parts were mixed to obtain a homogeneous suspoemulsion that completely controlled *Echinochloa crus-galli* without affecting rice growth.

IT **122548-33-8, Imazosulfuron**

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(pesticidal suspoemulsions for application to rice paddies)

IT **5138-18-1D, Sulfosuccinic acid, dialkyl derivs., salts**

RL: AGR (Agricultural use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(surfactants; pesticidal suspoemulsions for application to rice paddies)

L75 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:573601 HCAPLUS

DOCUMENT NUMBER: 133:173420

TITLE: Light, extruded pesticidal compositions containing a ceramic carrier for water surface application in paddy fields

INVENTOR(S): Takayanagi, Norikazu; Kimpara, Masaomi; Suzuki, Munehiro

PATENT ASSIGNEE(S): American Cyanamid Company, USA

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000047044	A1	20000817	WO 2000-US3073	20000207
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 2000029833	A5	20000829	AU 2000-29833	20000207
BR 2000008120	A	20011106	BR 2000-8120	20000207
EP 1150562	A1	20011107	EP 2000-908506	20000207
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
JP 2002536385	T2	20021029	JP 2000-598004	20000207

NZ 513715	A	20030530	NZ 2000-513715	20000207
EG 22636	A	20030531	EG 2000-147	20000208
BG 105862	A	20020531	BG 2001-105862	20010831
ZA 2001007438	A	20021217	ZA 2001-7438	20010910

PRIORITY APPLN. INFO.: US 1999-248859 A 19990211  
WO 2000-US3073 W 20000207

AB The light, extruded compns. comprise a pesticide, a light, extrudable, ceramic carrier and at least one surface active agent, and, optionally, a mineral carrier and a binder. The compds. are used for applying pesticides to the water surface of paddy rice fields.

IT 83055-99-6, Bensulfuronmethyl 93697-74-6, Pyrazosulfuronethyl 94593-91-6, Cinosulfuron 120162-55-2, Azimsulfuron 122548-33-8, Imazosulfuron 126801-58-9, Ethoxysulfuron

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(herbicide in light, extruded pesticidal compns. contg. ceramic carrier for water surface application)

IT 5138-18-1D, Sulfosuccinic acid, Dialkyl ether

RL: MOA (Modifier or additive use); USES (Uses)  
(surfactant in light, extruded pesticidal compns. contg. ceramic carrier for water surface application)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:452468 HCAPLUS

DOCUMENT NUMBER: 133:54843

TITLE: Controlled-release double-coated agrochemical granules

INVENTOR(S): Nishi, Yasushi; Hanaki, Katsuhiko

PATENT ASSIGNEE(S): Nippon Bayer Agrochem K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000186004	A2	20000704	JP 1998-365046	19981222

PRIORITY APPLN. INFO.: JP 1998-365046 19981222

AB The controlled-release granules are manufd. by coating core particles of mineral materials with agrochems. (A) using a mixed soln. of an poly(vinyl acetate) emulsion a surfactant, and further coating the coated particles with a compn. contg. agrochems. (B), bentonite, white carbon, and a binder using a mixed soln. of H2O, an anionic polycarboxylic acid surfactant, and the surfactant used in the 1st coating. The agrochems. (A) may have water soly. .ltoreq.100 ppm at 20.degree. and the agrochems. (B) have water soly. .ltoreq.50 ppm at 20.degree.. The coating design suppresses rapid release of agrochems. (A) with higher water soly. and promotes release of agrochems. (B) with less water soly. Silica sand particles were spray-coated with an aq. soln. contg. Na dioctyl sulfosuccinate (I) and poly(vinyl acetate), mixed with benfuracarb, dried, spray-coated with a mixt. of Toxanon GR 31A (polycarboxylic acid), I, and H2O, and then mixed with a compn. contg. carpropamid, bentonite, white carbon, pumice powder, and sucrose to give double-coated granules. Dissoln. of agrochem. components from the granules were also examd.

IT 5138-18-1D, Sulfosuccinic acid, dialkyl esters 83055-99-6, Bensulfuron-methyl

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(controlled-release double-coated agrochem. granules contg. two agrochems. in the different layers)

L75 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1998:715982 HCAPLUS  
 DOCUMENT NUMBER: 130:21760  
 TITLE: Formulations of pesticides coated on wood particles  
 for application to water surface  
 INVENTOR(S): Isono, Kunihiro; Kobayashi, Norihito; Goto, Toshio  
 PATENT ASSIGNEE(S): Nippon Bayer Agrochem K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10291902	A2	19981104	JP 1998-21562	19980120
PRIORITY APPLN. INFO.:			JP 1997-48556	19970218
AB	Agrochem. formulations for rice paddies powd. blends contg. agrochems., alkylnaphthalenesulfonates, dialkyl sulfosuccinates, and lignosulfonates are coated on wood particles, with apparent sp. gr. of .apprx.0.21-0.25 and particle size of .apprx.800-3000 .mu.m, by use of spindle oil. The formulations may contain a filler such as urea. Thus, 1-(2-chlorophenyl)-4-(N-cyclohexyl-N-ethylcarbamoyle)-5(4H)-tetrazolinone 8.87, Me .alpha.-(4,6-dimethoxypyrimidin-2-ylcarbamoyle)sulfamoyl)-O-toluate 6.24, 1-(4,6-dimethoxypyrimidin-2-yl)-3-[1-methyl-4-(2-methyl-2H-tetrazol-5-yl)pyrazol-5-ylsulfonyle]urea 2.56, 1-(.alpha.,.alpha.-dimethylbenzyl)-3-(p-tolyl)urea 11.67, Na alkylnaphthalenesulfonate 2.00, Na dioctyl sulfosuccinate 5.02, Na lignosulfonate 4.04 parts by wt. were ground, mixed, and added to a pan coater filled with 47.60 parts wood granules on which spindle oil (12.00 parts) had been dripped. The formulation was sealed in PVA film to prep. a solid formulation that spreads uniformly over the whole paddy and controls weeds such as Monochoria vaginalis well.			
IT	83055-99-6 120162-55-2 122548-33-8 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (formulations of pesticides coated on wood particles for application to water surface)			
IT	5138-18-1D, Sulfosuccinic acid, dialkyl derivs., salts RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (pesticide formulations coated on wood particles for use in rice fields)			

L75 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1998:442023 HCAPLUS  
 DOCUMENT NUMBER: 129:132560  
 TITLE: Floating formulations of pesticides coated on calcined pumice core for easy spreading on rice paddies  
 INVENTOR(S): Isono, Kunihiro; Kamata, Yasuhiro; Kobayashi, Norihito; Itsushima, Toshio  
 PATENT ASSIGNEE(S): Nihon Tokushu Noyaku Seizo K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10182303	A2	19980707	JP 1997-286217	19971003
PRIORITY APPLN. INFO.:			JP 1996-311222	19961108
AB	Pesticide formulations useful for rice paddies comprise powd. blends contg. agrochems., alkylnaphthalenesulfonate, dialkyl sulfosuccinate,			



lignosulfonate, and optionally alkyl sulfate coated on a calcined pumice core of particle size .apprx.500-1400 .mu.m with apparent sp. gr. <1 with use of spindle oil. Thus, a powder was prepd. by milling 1-(2-chlorophenyl)-4-(N-cyclohexyl-N-ethylcarbamoyle)-5(4H)-tetrazolinone, Me .alpha.-(4,6-dimethoxypyrimidin-2-ylcarbamoyle)sulfamoyl)-O-toluate, 1-(4,6-dimethoxypyrimidin-2-yl)-3-[1-methyl-4-(2-methyl-2H-tetrazol-5-yl)pyrazol-5-ylsulfonyl]urea, 1-(.alpha.,.alpha.-dimethylbenzyl)-3-(p-tolyl)urea, Na alkyl naphthalenesulfonate, Na dioctyl sulfosuccinate, Na lignosulfonate, and urea. After spindle oil was dripped on shirasu balloons in a pan coater, the powd. blend was added to prep. an agrochem. formulation with the powder forming a uniform coating on the shirasu balloons.

IT 83055-99-6 120162-55-2 122548-33-8

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(floating pesticide formulations for rice paddies contg.)

IT 5138-18-1D, Sulfosuccinic acid, dialkyl derivs., salts

RL: AGR (Agricultural use); MOA (Modifier or additive use); BIOL  
(Biological study); USES (Uses)

(in manuf. of floating pesticide formulations for rice paddies with calcined pumice core)

L75 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:259849 HCAPLUS

DOCUMENT NUMBER: 126:234740

TITLE: Stabilized granular **flazasulfuron** herbicidal composition

INVENTOR(S): Maeda, Masaru

PATENT ASSIGNEE(S): Ishihara Sangyo Kaisha, Ltd., Japan

SOURCE: Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 764404	A1	19970326	EP 1996-306702	19960916
EP 764404	B1	20010816		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5830827	A	19981103	US 1996-712514	19960913
AT 204133	E	20010915	AT 1996-306702	19960916
ES 2159690	T3	20011016	ES 1996-306702	19960916
JP 09143015	A2	19970603	JP 1996-269277	19960918

PRIORITY APPLN. INFO.: JP 1995-269469 A 19950921

AB A granular herbicidal compn. which comprises **flazasulfuron** or a salt thereof as a herbicidal active ingredient, together with a chem. stabilizer and a carrier. The stabilizer is a dialkylsulfosuccinate and/or benzoate.

IT 104040-78-0, **Flazasulfuron**

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
(stabilized granular **flazasulfuron** herbicidal compn.)

IT 5138-18-1D, Sulfosuccinic acid, dialkyl derivs.

RL: MOA (Modifier or additive use); USES (Uses)  
(stabilized granular **flazasulfuron** herbicidal compn.)

L75 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1996:392056 HCAPLUS

DOCUMENT NUMBER: 125:79408

TITLE: Herbicide composition with adjuvant comprising acidulated soap stock

INVENTOR(S): Farr, Jennifer; Lee, Phillip K.

PATENT ASSIGNEE(S): Central Soya Co., Inc., USA  
 SOURCE: U.S., 9 pp., Cont. of U.S. Ser. No. 947, 343,  
 abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5521144	A	19960528	US 1994-229999	19940419
PRIORITY APPLN. INFO.:			US 1992-947343	19920918
<p>AB An adjuvant compn. for use in a pesticide formulation that is applied to a substrate comprises acidulated soap stock. A surfactant and/or mixed tocopherols may be added to the adjuvant. The adjuvant increases the efficacy of sulfonylurea herbicides. Thus, a 4:1 mixt. of acid oil and a surfactant (alkylphenol ethoxylate) was tank mixed at 1.0% with <b>nicosulfuron</b> and applied to Johnson grass (<i>Sorghum halepense</i>) and giant foxtail (<i>Setaria faberii</i>) at 1.5 g ai/A. After 14 days, visual injury was 73 and 93% for Johnson grass and giant foxtail treated with herbicide contg. the adjuvant, whereas no injury was obsd. with herbicide not contg. adjuvant.</p> <p>IT 79277-67-1, <b>Thifensulfuron 111991-09-4</b>,  <b>Nicosulfuron 113036-87-6</b>, <b>Primisulfuron</b>        RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)        (acidulated soap stock-contg. adjuvants for formulations of herbicide with improved efficacy)</p> <p>IT 5138-18-1D, Sulfosuccinic acid, derivs.        RL: AGR (Agricultural use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)        (adjuvant for pesticide formulation contg. acidulated soap stock and)</p>				

L75 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1994:48147 HCAPLUS  
 DOCUMENT NUMBER: 120:48147  
 TITLE: Solid pesticide preparations containing surfactants, for paddy.  
 INVENTOR(S): Matsumoto, Naoki; Koko, Toshuki; Kawashima, Mitsuo; Kasai, Yutaka; Shirai, Juta; Suzuki, Koichi  
 PATENT ASSIGNEE(S): Nissan Chemical Ind Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05255002	A2	19931005	JP 1992-55367	19920313
PRIORITY APPLN. INFO.:			JP 1992-55367	19920313
<p>AB Solid pesticide prepn., applied to paddy at 1.5 to 1500 g/10 are, contain 5-30 wt.% surfactants. <b>Pyrazosulfuron-Et</b> 0.3, oxadiazon 6.0, Na dialkylsulfosuccinate 1.5, Na tripolyphosphate 2.0, polyoxyethylene alkyl sulfate salt 4.0, bentonite 30, clay 56.2, and H2O 15 wt. parts were kneaded and made into granules, which (50 g) were packaged in a PVA film. The prepn. (at 2 packages/are) totally controlled <i>Echinochloa crus-galli</i> and <i>Scirpus juncoides</i>, with no damage to rice.</p> <p>IT 5138-18-1D, Sulfosuccinic acid, alkyl derivs., salts        RL: BIOL (Biological study)</p>				

(solid pesticide preps. contg., as surfactants, for paddy)  
 IT 93697-74-6, Pyrazosulfuron-ethyl  
 RL: BIOL (Biological study)  
 (solid preps. contg. surfactants and, for paddy)

L75 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:530089 HCAPLUS  
 DOCUMENT NUMBER: 115:130089  
 TITLE: Pesticidal dispersible granules containing solid wetting agent  
 INVENTOR(S): Roechling, Hans; Kocur, Jean; Albrecht, Konrad  
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 413267	A1	19910220	EP 1990-115360	19900810
EP 413267	B1	19971112		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
DE 3926800	A1	19910221	DE 1989-3926800	19890814
AT 160071	E	19971115	AT 1990-115360	19900810
ES 2110954	T3	19980301	ES 1990-115360	19900810
AU 9060925	A1	19910214	AU 1990-60925	19900813
AU 648038	B2	19940414		
ZA 9006382	A	19910529	ZA 1990-6382	19900813
JP 03193702	A2	19910823	JP 1990-211760	19900813
DD 297055	A5	19920102	DD 1990-343417	19900813

PRIORITY APPLN. INFO.: DE 1989-3926800 19890814

AB Water-dispersible granules contain pesticide 10-90, wetting agent (alkanesulfonate, alkyl sulfate, alkyl naphthalenesulfonate, etc.) 10-90, and additives (carrier, filler, binder, etc.) 0-50%. A formulation made of D,L-fenoxapropethyl (96.8%) 9.3, Hostapur OS (C14-19 Na olefinsulfonate) 33.45, defoamer SE 2 0.90, Hoe S 1494 (cresol-formaldehyde condensation product) 1.35, and water 55% by wt. was granulated and spray-dried.

IT 74223-64-6, Granstar  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (water-dispersible granules of)

IT 5138-18-1D, alkyl derivs.  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (wetting agent, for water-dispersible pesticide granules)

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=> select hit rn 175 1-14  
 E1 THROUGH E25 ASSIGNED

=> fil reg  
 FILE 'REGISTRY' ENTERED AT 13:57:45 ON 31 OCT 2003  
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STRUCTURE FILE UPDATES: 30 OCT 2003 HIGHEST RN 611168-03-7  
 DICTIONARY FILE UPDATES: 30 OCT 2003 HIGHEST RN 611168-03-7

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
 PROPERTIES for more information. See STNote 27, Searching Properties  
 in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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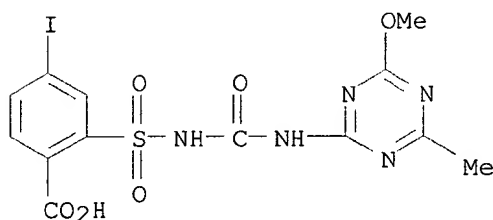
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 1 122548-33-8/BI  
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 1 120162-55-2/BI  
 (120162-55-2/RN)  
 1 126801-58-9/BI  
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 1 111991-09-4/BI  
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 79277-67-1/BI OR 93697-74-6/BI OR 104040-78-0/BI OR 111353-84-5/  
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L76 ANSWER 1 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 185119-76-0 REGISTRY  
 CN Benzoic acid, 4-iodo-2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-  
 yl)amino]carbonyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Huzar  
 CN Iodosulfuron  
 CN Triofensulfuron  
 MF C13 H12 I N5 O6 S  
 CI COM  
 SR CA  
 LC STN Files: BIOSIS, CA, CAPLUS, CBNB, TOXCENTER, ULIDAT, USPAT2,  
 USPATFULL



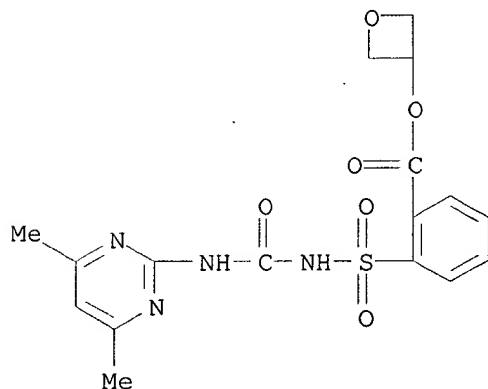
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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 22 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 30 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:64821  
 REFERENCE 2: 138:267187  
 REFERENCE 3: 138:267186  
 REFERENCE 4: 138:20913  
 REFERENCE 5: 137:274345  
 REFERENCE 6: 136:212332

REFERENCE 7: 136:195645  
 REFERENCE 8: 135:340483  
 REFERENCE 9: 134:306619  
 REFERENCE 10: 134:291460

L76 ANSWER 2 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN **144651-06-9** REGISTRY  
 CN Benzoic acid, 2-[[[(4,6-dimethyl-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-, 3-oxetanyl ester (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN CGA 277476  
 CN EP-A 0496701  
 CN Expert  
 CN Oxasulfuron  
 MF C17 H18 N4 O6 S  
 CI COM  
 SR CA  
 LC STN Files: AGRICOLA, ANABSTR, BIOSIS, CA, CAPLUS, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DIOGENES, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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 25 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 58 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:64821  
 REFERENCE 2: 139:18607  
 REFERENCE 3: 138:267210  
 REFERENCE 4: 138:267186  
 REFERENCE 5: 138:233416  
 REFERENCE 6: 138:200324  
 REFERENCE 7: 138:68344

REFERENCE 8: 138:68331

REFERENCE 9: 138:60869

REFERENCE 10: 138:34679

L76 ANSWER 3 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 135990-29-3 REGISTRY

CN Benzoic acid, 2-[[[4-(dimethylamino)-6-(2,2,2-trifluoroethoxy)-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfonyl]-3-methyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Debut

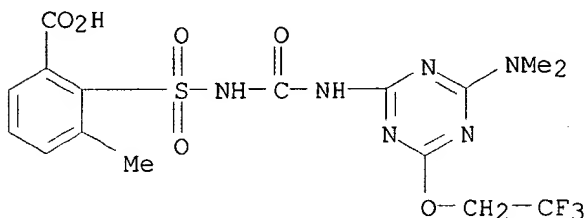
CN Triflusulfuron

MF C16 H17 F3 N6 O6 S

CI COM

SR CAS Registry Services

LC STN Files: AGRICOLA, BIOBUSINESS, CA, CAPLUS, CBNB, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

35 REFERENCES IN FILE CA (1907 TO DATE)

12 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

35 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:225814

REFERENCE 2: 139:145110

REFERENCE 3: 139:64821

REFERENCE 4: 138:267186

REFERENCE 5: 138:68344

REFERENCE 6: 138:34679

REFERENCE 7: 137:274424

REFERENCE 8: 137:221539

REFERENCE 9: 136:290486

REFERENCE 10: 136:195645

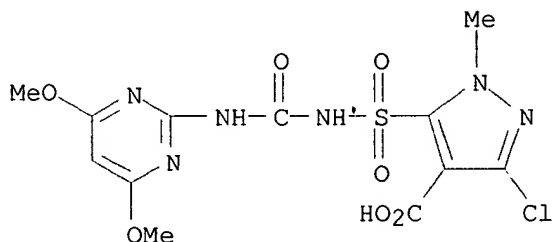
L76 ANSWER 4 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 135397-30-7 REGISTRY

CN 1H-Pyrazole-4-carboxylic acid, 3-chloro-5-[[[4,6-dimethoxy-2-pyrimidinyl]amino]carbonyl]amino]sulfonyl]-1-methyl- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN Halosulfuron  
 FS 3D CONCORD  
 MF C12 H13 Cl N6 O7 S  
 CI COM  
 SR CAS Registry Services  
 LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CBNB, RTECS\*,  
 TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)



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 23 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 78 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:241692  
 REFERENCE 2: 139:241691  
 REFERENCE 3: 139:241690  
 REFERENCE 4: 139:176850  
 REFERENCE 5: 139:64821  
 REFERENCE 6: 139:2379  
 REFERENCE 7: 138:267186  
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 REFERENCE 10: 138:182318

L76 ANSWER 5 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

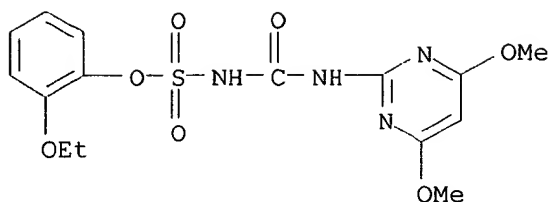
RN **126801-58-9** REGISTRY

CN Sulfamic acid, [[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-, 2-ethoxyphenyl ester (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN Ethoxysulfuron  
 CN HOE 095404  
 FS 3D CONCORD  
 MF C15 H18 N4 O7 S  
 CI COM  
 SR CA  
 LC STN Files: ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMCATS,  
 CHEMLIST, CIN, PROMT, TOXCENTER, USPAT2, USPATFULL





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

81 REFERENCES IN FILE CA (1907 TO DATE)  
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 81 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:272374  
 REFERENCE 2: 139:192911  
 REFERENCE 3: 139:113086  
 REFERENCE 4: 139:64821  
 REFERENCE 5: 139:32053  
 REFERENCE 6: 139:18607  
 REFERENCE 7: 139:2379  
 REFERENCE 8: 138:267210  
 REFERENCE 9: 138:267187  
 REFERENCE 10: 138:267186

L76 ANSWER 6 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 122931-48-0 REGISTRY

CN 2-Pyridinesulfonamide, N-[[ (4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-3-(ethanesulfonyl)- (9CI) (CA INDEX NAME)

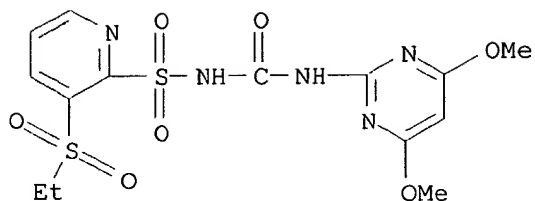
OTHER NAMES:

CN DPX-E 9636  
 CN Matrix  
 CN Rimsulfuron  
 CN Tarot  
 CN Titus  
 CN Titus (pesticide)  
 MF C14 H17 N5 O7 S2

CI COM

SR CA

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, CA, CAPLUS, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, MRCK\*, PROMT, RTECS\*, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

304 REFERENCES IN FILE CA (1907 TO DATE)  
 53 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 305 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:241692  
 REFERENCE 2: 139:225814  
 REFERENCE 3: 139:176850  
 REFERENCE 4: 139:145110  
 REFERENCE 5: 139:113086  
 REFERENCE 6: 139:64821  
 REFERENCE 7: 139:48644  
 REFERENCE 8: 139:18607  
 REFERENCE 9: 139:2384  
 REFERENCE 10: 138:367737

L76 ANSWER 7 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN **122548-33-8** REGISTRY

CN Imidazo[1,2-a]pyridine-3-sulfonamide, 2-chloro-N-[[4,6-dimethoxy-2-pyrimidinyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Imazosulfuron

CN Takeoff

CN TH 913

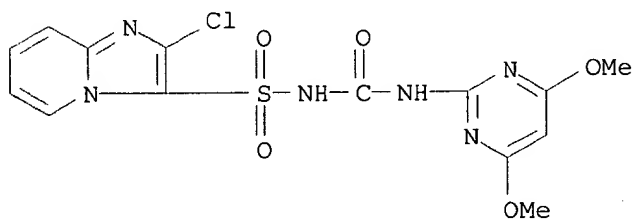
FS 3D CONCORD

MF C14 H13 Cl N6 O5 S

CI COM

SR CA

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CBNB, CEN, CHEMLIST, CIN, PROMT, RTECS\*, TOXCENTER, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)



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180 REFERENCES IN FILE CA (1907 TO DATE)  
63 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
181 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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REFERENCE 2: 139:225822  
REFERENCE 3: 139:192911  
REFERENCE 4: 139:161026  
REFERENCE 5: 139:113125  
REFERENCE 6: 139:96676  
REFERENCE 7: 139:64821  
REFERENCE 8: 139:18607  
REFERENCE 9: 138:282793  
REFERENCE 10: 138:267210

L76 ANSWER 8 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 120162-55-2 REGISTRY

CN 1H-Pyrazole-5-sulfonamide, N-[[ (4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-1-methyl-4-(2-methyl-2H-tetrazol-5-yl)- (9CI)  
(CA INDEX NAME)

OTHER NAMES:

CN Azimsulfuron

CN DPX 47

CN DPX-A 8947

CN IN-A 8947

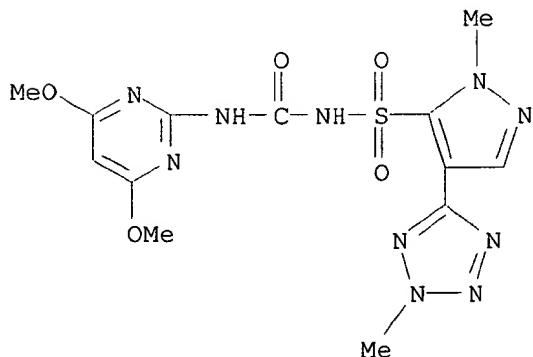
FS 3D CONCORD

MF C13 H16 N10 O5 S

CI COM

SR CA

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CBNB, CHEMLIST, MEDLINE, MRCK\*, NIOSHTIC, RTECS\*, TOXCENTER, ULIDAT, USPATFULL  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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 REFERENCE 3: 139:209239  
 REFERENCE 4: 139:192911  
 REFERENCE 5: 139:113125  
 REFERENCE 6: 139:64821  
 REFERENCE 7: 139:64778  
 REFERENCE 8: 139:18607  
 REFERENCE 9: 138:282719  
 REFERENCE 10: 138:267210

L76 ANSWER 9 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 113036-87-6 REGISTRY

CN Benzoic acid, 2-[[[4,6-bis(difluoromethoxy)-2-pyrimidinyl]amino]carbonyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

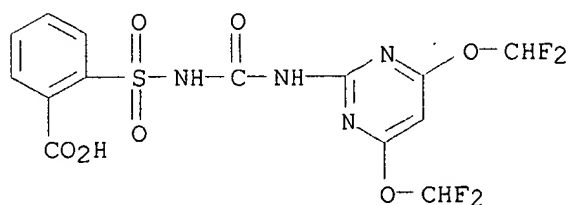
CN Primisulfuron

MF C14 H10 F4 N4 O7 S

CI COM

SR CAS Registry Services

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CEN, CIN, TOXCENTER, USPAT2, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

204 REFERENCES IN FILE CA (1907 TO DATE)  
 32 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 205 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:241692  
 REFERENCE 2: 139:64821  
 REFERENCE 3: 139:48644

REFERENCE 4: 139:2384  
 REFERENCE 5: 138:343320  
 REFERENCE 6: 138:267186  
 REFERENCE 7: 138:200070  
 REFERENCE 8: 138:149004  
 REFERENCE 9: 138:84870  
 REFERENCE 10: 138:68344

L76 ANSWER 10 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 111991-09-4 REGISTRY

CN 3-Pyridinecarboxamide, 2-[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)

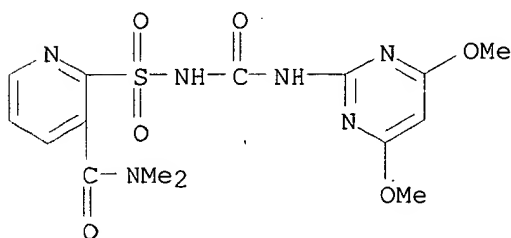
OTHER NAMES:

CN Accent  
 CN Accent (pesticide)  
 CN DPX-V 9360  
 CN EMA 1534  
 CN HU 195  
 CN Milagro  
 CN Motivell  
 CN Nicosulfuron  
 CN SL 950  
 MF C15 H18 N6 O6 S

CI COM

SR CA

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS\*, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

411 REFERENCES IN FILE CA (1907 TO DATE)  
 64 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 413 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:241692  
 REFERENCE 2: 139:225814

REFERENCE 3: 139:209244  
 REFERENCE 4: 139:192829  
 REFERENCE 5: 139:145110  
 REFERENCE 6: 139:73483  
 REFERENCE 7: 139:48644  
 REFERENCE 8: 139:18607  
 REFERENCE 9: 139:2384  
 REFERENCE 10: 139:2379

L76 ANSWER 11 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 111353-84-5 REGISTRY

CN Benzoic acid, 2-[[[4-ethoxy-6-(methylamino)-1,3,5-triazin-2-yl]amino]carbonyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Ethametsulfuron

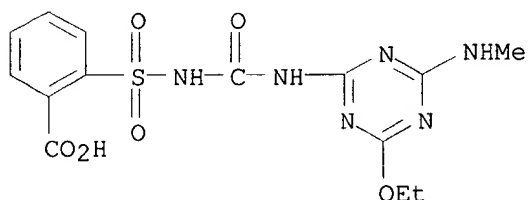
CN Muster

MF C14 H16 N6 O6 S

CI COM

SR CAS Registry Services

LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, PIRA, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

41 REFERENCES IN FILE CA (1907 TO DATE)

8 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

41 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:129350  
 REFERENCE 2: 139:73547  
 REFERENCE 3: 139:64821  
 REFERENCE 4: 138:267186  
 REFERENCE 5: 138:68344  
 REFERENCE 6: 137:364791  
 REFERENCE 7: 136:351651  
 REFERENCE 8: 136:351573  
 REFERENCE 9: 136:336584

REFERENCE 10: 136:274586

L76 ANSWER 12 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 104040-78-0 REGISTRY

CN 2-Pyridinesulfonamide, N-[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Flazasulfuron

CN OK 1166

CN Shibagen

CN SL 160

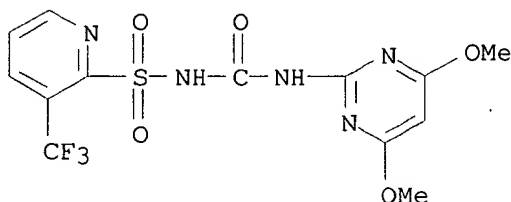
MF C13 H12 F3 N5 O5 S

CI COM

SR CA

LC STN Files: AGRICOLA, ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, MRCK\*, PROMT, RTECS\*, TOXCENTER, USPATFULL

(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

69 REFERENCES IN FILE CA (1907 TO DATE)

20 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

70 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:272374

REFERENCE 2: 139:64821

REFERENCE 3: 139:18607

REFERENCE 4: 138:397540

REFERENCE 5: 138:397469

REFERENCE 6: 138:267210

REFERENCE 7: 138:267186

REFERENCE 8: 138:223306

REFERENCE 9: 138:165212

REFERENCE 10: 138:149044

L76 ANSWER 13 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

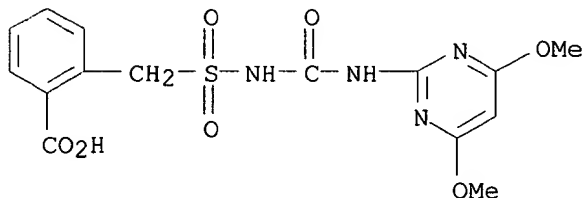
RN 99283-01-9 REGISTRY

CN Benzoic acid, 2-[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]methyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Bensulfuron

FS 3D CONCORD  
 MF C15 H16 N4 O7 S  
 CI COM  
 SR CAS Registry Services  
 LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CBNB,  
 CEN, CHEMLIST, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

91 REFERENCES IN FILE CA (1907 TO DATE)  
 23 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 91 REFERENCES IN FILE CAPLUS (1907 TO DATE)

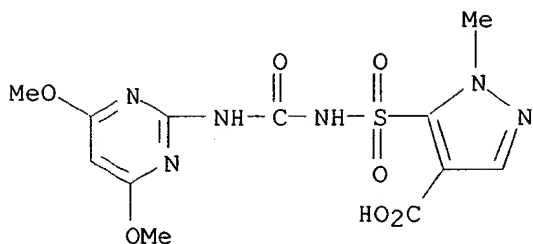
REFERENCE 1: 139:225814  
 REFERENCE 2: 139:190695  
 REFERENCE 3: 139:64821  
 REFERENCE 4: 139:2379  
 REFERENCE 5: 138:267186  
 REFERENCE 6: 138:68344  
 REFERENCE 7: 137:364835  
 REFERENCE 8: 137:321565  
 REFERENCE 9: 137:221539  
 REFERENCE 10: 136:336582

L76 ANSWER 14 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 98389-04-9 REGISTRY  
 CN 1H-Pyrazole-4-carboxylic acid, 5-[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Pyrazosulfuron  
 FS 3D CONCORD  
 MF C12 H14 N6 O7 S  
 CI COM  
 SR CA  
 LC STN Files: AGRICOLA, BIOSIS, CA, CABA, CAPLUS, CHEMLIST, CIN, PROMT, RTECS\*, TOXCENTER, USPATFULL  
 (\*File contains numerically searchable property data)



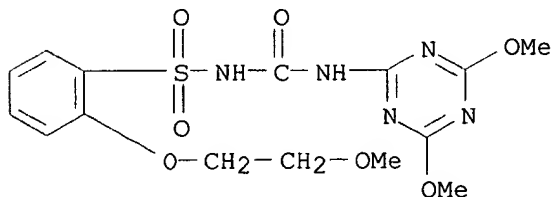


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

40 REFERENCES IN FILE CA (1907 TO DATE)  
19 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
40 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:192911  
REFERENCE 2: 139:64821  
REFERENCE 3: 138:267186  
REFERENCE 4: 138:250030  
REFERENCE 5: 137:290314  
REFERENCE 6: 137:274423  
REFERENCE 7: 136:195645  
REFERENCE 8: 135:299961  
REFERENCE 9: 135:253266  
REFERENCE 10: 135:176748

L76 ANSWER 15 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 94593-91-6 REGISTRY  
CN Benzenesulfonamide, N-[[[4,6-dimethoxy-1,3,5-triazin-2-yl)amino]carbonyl]-  
2-(2-methoxyethoxy)- (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN CGA 142464  
CN Cinosulfuron  
CN Dimetrasulfuron  
FS 3D CONCORD  
MF C15 H19 N5 O7 S  
CI COM  
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CBNB, CHEMCATS,  
CHEMLIST, CSCHEM, MEDLINE, RTECS\*, SPECINFO, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

159 REFERENCES IN FILE CA (1907 TO DATE)  
 59 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 159 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:272374  
 REFERENCE 2: 139:221445  
 REFERENCE 3: 139:209239  
 REFERENCE 4: 139:209236  
 REFERENCE 5: 139:145110  
 REFERENCE 6: 139:113125  
 REFERENCE 7: 139:64821  
 REFERENCE 8: 139:18607  
 REFERENCE 9: 138:397616  
 REFERENCE 10: 138:299244

L76 ANSWER 16 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 94125-34-5 REGISTRY

CN Benzenesulfonamide, N-[[ (4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]-2-(3,3,3-trifluoropropyl)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN CGA 152005

CN N-(4-Methoxy-6-methyl-1,3,5-triazin-2-yl)-N'-[2-(3,3,3-trifluoroprop-1-yl)benzenesulfonyl]urea

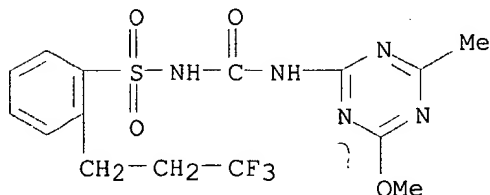
CN Prosulfuron

FS 3D CONCORD

MF C15 H16 F3 N5 O4 S

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CSCHEM, MEDLINE, MRCK\*, PROMT, RTECS\*, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

141 REFERENCES IN FILE CA (1907 TO DATE)  
 52 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 141 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:272374

REFERENCE 2: 139:221445  
 REFERENCE 3: 139:64821  
 REFERENCE 4: 139:32064  
 REFERENCE 5: 139:18607  
 REFERENCE 6: 138:267210  
 REFERENCE 7: 138:267187  
 REFERENCE 8: 138:267186  
 REFERENCE 9: 138:233416  
 REFERENCE 10: 138:216801

L76 ANSWER 17 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 93697-74-6 REGISTRY

CN 1H-Pyrazole-4-carboxylic acid, 5-[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]-1-methyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

OTHER NAMES:

CN Agreeen

CN Pyrazosulfuron-ethyl

FS 3D CONCORD

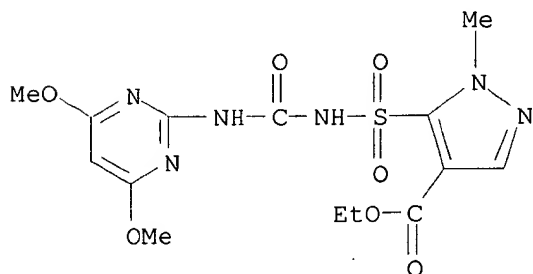
DR 129271-63-2

MF C14 H18 N6 O7 S

CI COM

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, PROMT, RTECS\*, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

247 REFERENCES IN FILE CA (1907 TO DATE)

58 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

248 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:272374  
 REFERENCE 2: 139:161026  
 REFERENCE 3: 139:113125  
 REFERENCE 4: 139:105983

REFERENCE 5: 139:96676  
 REFERENCE 6: 139:18607  
 REFERENCE 7: 138:267210  
 REFERENCE 8: 138:267187  
 REFERENCE 9: 138:233416  
 REFERENCE 10: 138:223306

L76 ANSWER 18 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 83055-99-6 REGISTRY

CN Benzoic acid, 2-[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonylmethyl]-, methyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Bensulfuron-methyl

CN Bianmihuanglong

CN DPX 84

CN DPX-F 5384

CN F 5384

CN Londax

CN Mariner

CN Methyl 2-[(4,6-dimethoxypyrimidin-2-yl)ureidosulfonylmethyl]benzoate

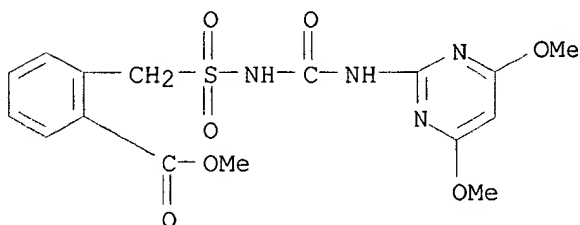
FS 3D CONCORD

DR 96081-37-7, 104466-83-3, 110280-01-8

MF C16 H18 N4 O7 S

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAPLUS, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, MEDLINE, MRCK\*, MSDS-OHS, PROMT, RTECS\*, TOXCENTER, ULIDAT, USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

521 REFERENCES IN FILE CA (1907 TO DATE)

58 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

524 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:272374  
 REFERENCE 2: 139:265166  
 REFERENCE 3: 139:244844  
 REFERENCE 4: 139:226409  
 REFERENCE 5: 139:218758

REFERENCE 6: 139:192911  
 REFERENCE 7: 139:161026  
 REFERENCE 8: 139:145110  
 REFERENCE 9: 139:129350  
 REFERENCE 10: 139:113125

L76 ANSWER 19 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 82097-50-5 REGISTRY

CN Benzenesulfonamide, 2-(2-chloroethoxy)-N-[[4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Amber

CN CGA 131036

CN Logran

CN Triasulfuron

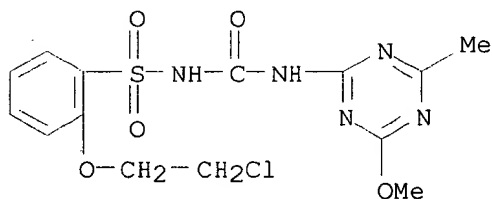
FS 3D CONCORD

DR 135100-29-7

MF C14 H16 Cl N5 O5 S

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, CA, CABA, CAPLUS, CBNB, CHEMCATS, CHEMLIST, CSCHEM, CSNB, MEDLINE, MRCK\*, PROMT, RTECS\*, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

353 REFERENCES IN FILE CA (1907 TO DATE)

58 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

353 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:272374  
 REFERENCE 2: 139:241692  
 REFERENCE 3: 139:241691  
 REFERENCE 4: 139:241690  
 REFERENCE 5: 139:225814  
 REFERENCE 6: 139:221445  
 REFERENCE 7: 139:190695  
 REFERENCE 8: 139:113090  
 REFERENCE 9: 139:64821

REFERENCE 10: 139:18607

L76 ANSWER 20 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 79510-48-8 REGISTRY

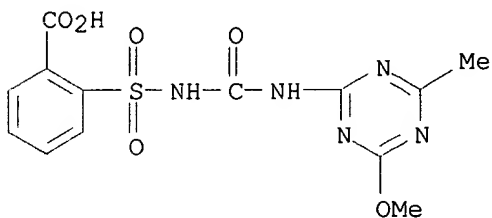
CN Benzoic acid, 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Metsulfuron

MF C13 H13 N5 O6 S

CI COM

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CABA, CAPLUS, CASREACT, CBNB, PROMT, RTECS\*, TOXCENTER, USPATFULL  
(\*File contains numerically searchable property data)

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

213 REFERENCES IN FILE CA (1907 TO DATE)

25 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

213 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:260149

REFERENCE 2: 139:241692

REFERENCE 3: 139:241691

REFERENCE 4: 139:241690

REFERENCE 5: 139:113086

REFERENCE 6: 139:64821

REFERENCE 7: 139:2379

REFERENCE 8: 138:267186

REFERENCE 9: 138:182464

REFERENCE 10: 138:102327

L76 ANSWER 21 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 79277-67-1 REGISTRY

CN 2-Thiophenecarboxylic acid, 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN L 9225

CN Thiameturon

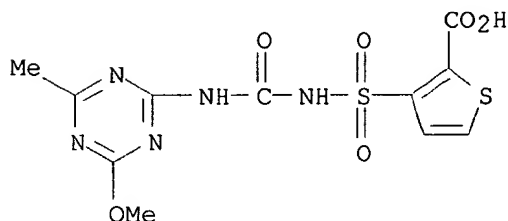
CN Thifensulfuron

FS 3D CONCORD

DR 109946-38-5

MF C11 H11 N5 O6 S2

CI COM  
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT,  
CBNB, PROMT, TOXCENTER, USPAT2, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

186 REFERENCES IN FILE CA (1907 TO DATE)  
33 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
186 REFERENCES IN FILE CAPLUS (1907 TO DATE)

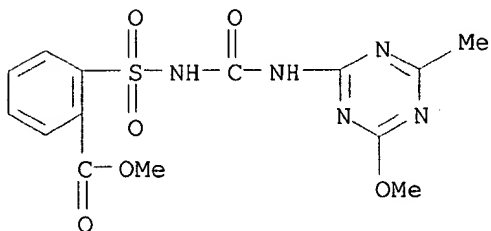
REFERENCE 1: 139:241692  
REFERENCE 2: 139:241691  
REFERENCE 3: 139:241690  
REFERENCE 4: 139:145110  
REFERENCE 5: 139:64821  
REFERENCE 6: 138:364149  
REFERENCE 7: 138:282744  
REFERENCE 8: 138:267186  
REFERENCE 9: 138:200070  
REFERENCE 10: 138:182455

L76 ANSWER 22 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 74223-64-6 REGISTRY  
CN Benzoic acid, 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Ally  
CN Ally 20DF  
CN Brush-off  
CN DPD 63760H  
CN DPX 6376  
CN DPX-T 6376  
CN Escort  
CN Escort (pesticide)  
CN Granstar  
CN Gropper  
CN HCHA 92HA  
CN Metsulfuron-methyl  
CN N-[(2-Methoxycarbonyl)phenyl]sulfonyl-N'-(6-methoxy-4-methyl-2-triazinyl)urea  
CN T 6376  
DR 82197-07-7

MF C14 H15 N5 O6 S

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, HSDB\*, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS\*, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

690 REFERENCES IN FILE CA (1907 TO DATE)

44 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

691 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:287602  
REFERENCE 2: 139:272374  
REFERENCE 3: 139:272340  
REFERENCE 4: 139:241522  
REFERENCE 5: 139:234653  
REFERENCE 6: 139:225714  
REFERENCE 7: 139:221445  
REFERENCE 8: 139:209840  
REFERENCE 9: 139:209240  
REFERENCE 10: 139:196850

L76 ANSWER 23 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 64902-72-3 REGISTRY

CN Benzenesulfonamide, 2-chloro-N-[[ (4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Chlorsulfuron

CN DPX 4189

CN DPX-W 4189

CN Glean

CN Glean 20DF

CN Glean 75

CN Glean 75DF

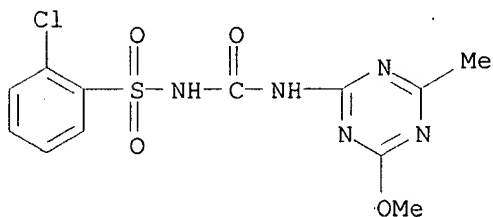
CN Khardin

CN N-(2-Chlorophenyl)sulfonyl-N'-(4-methyl-6-methoxy-2-triazinyl)urea

CN Tuligen



CN W 4189  
 FS 3D CONCORD  
 DR 112143-77-8  
 MF C12 H12 Cl N5 O4 S  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, HSDB\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1298 REFERENCES IN FILE CA (1907 TO DATE)  
 59 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1300 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:272374  
 REFERENCE 2: 139:256630  
 REFERENCE 3: 139:241692  
 REFERENCE 4: 139:241691  
 REFERENCE 5: 139:241690  
 REFERENCE 6: 139:241522  
 REFERENCE 7: 139:225814  
 REFERENCE 8: 139:221445  
 REFERENCE 9: 139:209840  
 REFERENCE 10: 139:209232

L76 ANSWER 24 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 9027-45-6 REGISTRY  
 CN Synthase, acetolactate (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN .alpha.-Acetohydroxy acid synthetase  
 CN .alpha.-Acetohydroxyacid synthase  
 CN .alpha.-Acetolactate synthase  
 CN .alpha.-Acetolactate synthetase  
 CN Acetohydroxy acid synthase

CN Acetohydroxy acid synthetase  
 CN Acetolactate synthase  
 CN Acetolactate synthetase  
 CN Acetolactic synthetase  
 CN E.C. 4.1.3.18  
 MF Unspecified  
 CI MAN  
 LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS,  
 CASREACT, CEN, CIN, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

1195 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1197 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:290067

REFERENCE 2: 139:271016

REFERENCE 3: 139:260003

REFERENCE 4: 139:256630

REFERENCE 5: 139:241698

REFERENCE 6: 139:241616

REFERENCE 7: 139:226409

REFERENCE 8: 139:226361

REFERENCE 9: 139:225814

REFERENCE 10: 139:225801

L76 ANSWER 25 OF 25 REGISTRY COPYRIGHT 2003 ACS on STN

RN 5138-18-1 REGISTRY

CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Succinic acid, sulfo- (6CI, 7CI, 8CI)

OTHER NAMES:

CN 2-Sulfosuccinic acid

CN Sulfosuccinic acid

FS 3D CONCORD

DR 55904-24-0, 181719-29-9

MF C4 H6 O7 S

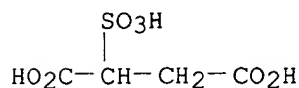
CI COM

LC STN Files: BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD,  
 CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE,  
 GMELIN\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, PROMT, TOXCENTER, USPAT2,  
 USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*, NDSL\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1257 REFERENCES IN FILE CA (1907 TO DATE)  
954 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1257 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 139:296972  
REFERENCE 2: 139:296536  
REFERENCE 3: 139:278807  
REFERENCE 4: 139:265408  
REFERENCE 5: 139:265382  
REFERENCE 6: 139:245324  
REFERENCE 7: 139:217219  
REFERENCE 8: 139:202112  
REFERENCE 9: 139:198220  
REFERENCE 10: 139:192911

=> fil hcaplus  
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 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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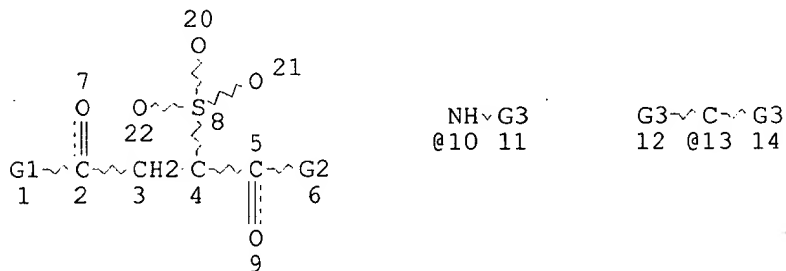
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FILE COVERS 1907 - 31 Oct 2003 VOL 139 ISS 19  
 FILE LAST UPDATED: 30 Oct 2003 (20031030/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=>  
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=> d stat que l81  
 L69 STR



VAR G1=OH/NH2/10/13  
 VAR G2=O/N  
 VAR G3=O/C/HY  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L71 1491 SEA FILE=REGISTRY SSS FUL L69  
 L72 571 SEA FILE=REGISTRY ABB=ON PLU=ON ACETOLACTATE SYNTHASE?/CN OR SULFURON?  
 L73 2955 SEA FILE=HCAPLUS ABB=ON PLU=ON L71  
 L74 5398 SEA FILE=HCAPLUS ABB=ON PLU=ON L72 OR ALS(L)INHIBIT? OR ACETOLACTATE(W) (SYNTHASE OR SYNTHETASE) OR ?SULFURON?  
 L75 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 AND L73  
 L77 26550 SEA FILE=REGISTRY ABB=ON PLU=ON SUCCIN?  
 L78 221046 SEA FILE=HCAPLUS ABB=ON PLU=ON L77

L80 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L78(L)L74  
 L81 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 NOT L75

=>  
 =>

=> d ibib abs hitrn l81

L81 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:816570 HCAPLUS  
 DOCUMENT NUMBER: 139:287121  
 TITLE: Complete genome sequence and analysis of Wolinella  
 succinogenes  
 AUTHOR(S): Baar, Claudia; Eppinger, Mark; Raddatz, Guenter;  
 Simon, Joerg; Lanz, Christa; Klimmek, Oliver;  
 Nandakumar, Ramkumar; Gross, Roland; Rosinus, Andrea;  
 Keller, Heike; Jagtap, Pratik; Linke, Burkhard; Meyer,  
 Folker; Lederer, Hermann; Schuster, Stephan C.  
 CORPORATE SOURCE: Max Planck Institute for Developmental Biology,  
 Tuebingen, 72076, Germany  
 SOURCE: Proceedings of the National Academy of Sciences of the  
 United States of America (2003), 100(20), 11690-11695  
 CODEN: PNASA6; ISSN: 0027-8424  
 PUBLISHER: National Academy of Sciences  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB To understand the origin and emergence of pathogenic bacteria, knowledge  
 of the genetic inventory from their nonpathogenic relatives is a  
 prerequisite. Therefore, the 2.11-megabase genome sequence of Wolinella  
 succinogenes, which is closely related to the pathogenic bacteria  
 Helicobacter pylori and Campylobacter jejuni, was detd. Despite being  
 considered nonpathogenic to its bovine host, W. succinogenes holds an  
 extensive repertoire of genes homologous to known bacterial virulence  
 factors. Many of these genes have been acquired by lateral gene transfer,  
 because part of the virulence plasmid pVir and an N-linked glycosylation  
 gene cluster were found to be syntenic between C. jejuni and genomic  
 islands of W. succinogenes. In contrast to other host-adapted bacteria,  
 W. succinogenes does harbor the highest d. of bacterial sensor kinases  
 found in any bacterial genome to date, together with an elaborate  
 signaling circuitry of the GGDEF family of proteins. Because the anal. of  
 the W. succinogenes genome also revealed genes related to soil- and  
 plant-assocd. bacteria such as the nif genes, W. succinogenes may  
 represent a member of the epsilon proteobacteria with a life cycle outside  
 its host. The genome sequence is deposited in GenBank/EMBL/DDBJ under  
 accession no. BX571656 and in the RefSeq Genome Database under accession  
 no. NC\_005090 and is also available at www.wolinella.mpg.de..

IT 581739-97-1 581739-98-2 581747-67-3  
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
 (Biological study)  
 (amino acid sequence; complete genome sequence and anal. of Wolinella  
 succinogenes)

REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d ibib abs hitrn l81 2-11

L81 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2003:633919 HCAPLUS

DOCUMENT NUMBER: 139:175865  
 TITLE: Cloning, sequence, crystal structure, and drug screening and drug design use of acetolactate synthase small subunit from Staphylococcus aureus  
 INVENTOR(S): Edwards, Aled; Dharamsi, Akil; Vedadi, Masoud; Houston, Simon; Kimber, Matthew  
 PATENT ASSIGNEE(S): Affinium Pharmaceuticals, Inc., Can.  
 SOURCE: PCT Int. Appl., 187 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066849	A2	20030814	WO 2003-CA133	20030204
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2002-354422P P 20020204

AB The present invention relates to novel drug targets for Staphylococcus aureus. Accordingly, the invention provides the nucleotide sequence and the encoded amino acid sequence of Staphylococcus aureus acetolactate synthase. Accordingly, the invention provides the nucleotide sequence of gene *ilvG/M* and the amino acid sequence of the encoded small subunit of acetolactate synthase. The invention also provides biochem. and biophys. characteristics of the polypeptide of the invention. Crystal structure of the acetolactate synthase small subunit is disclosed. The crystal structure of the enzyme can be used for drug screening, drug design or herbicide design.

IT 70-47-3, Asn, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (-29, essential; cloning, sequence, crystal structure, and drug screening and drug design use of **acetolactate synthase** small subunit from Staphylococcus aureus)

L81 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:133485 HCAPLUS  
 DOCUMENT NUMBER: 138:165209  
 TITLE: Determination of plant resistance to acetolactate synthase inhibitors  
 INVENTOR(S): Shaner, Dale L.  
 PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 25 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003014379	A2	20030220	WO 2002-EP8390	20020727
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,			

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2001-310014P P 20010803

AB A method for detg. whether a plant is resistant to an acetohydroxyacid synthase (AHAS or ALS) inhibitor comprises: (a) treating a part taken from the plant with a acetohydroxyacid synthase inhibitor, a ketol-acid reductoisomerase inhibitor and an external supplement that is either a compd. or combination of compds. selected from the group consisting of alanine, ammonium hydroxide, asparagine, and pyruvic acid or a salt thereof; and (b) measuring the amts. of acetohydroxybutyrate and/or acetolactate.

IT 70-47-3, Asparagine, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(supplement in detn. of plant resistance to **ALS inhibitors**)

L81 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:611157 HCAPLUS

DOCUMENT NUMBER: 137:364816

TITLE: Cross-resistance to bispyribac-sodium and bensulfuron-methyl in *Echinochloa phyllopogon* and *Cyperus difformis*

AUTHOR(S): Osuna, Maria D.; Vidotto, Francesco; Fischer, Albert J.; Bayer, David E.; De Prado, Rafael; Ferrero, Aldo

CORPORATE SOURCE: Vegetable Crops Department, University of California, Davis, CA, 95616, USA

SOURCE: Pesticide Biochemistry and Physiology (2002), 73(1), 9-17

CODEN: PCBPBS; ISSN: 0048-3575

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Water-seeded and continuously flooded rice in California is mostly grown as a continuous crop and weeds are the most serious rice prodn. problem. *Echinochloa phyllopogon* (Stapf) Koss and *Cyperus difformis* L. are adapted to this aquatic system and compete with rice, causing heavy economic losses. Flooding cannot fully suppress these weeds. Heavy reliance on few available herbicides resulted in the evolution of herbicide resistance in populations of both weeds in California rice fields. Resistance to bensulfuron-Me (ALS inhibitor) is widespread among *C. difformis* populations. *E. phyllopogon* has evolved resistance to several herbicides, including bispyribac-sodium (ALS inhibitor), which has not yet been com. used. A resistant (R) *E. phyllopogon* was also much more tolerant to bensulfuron-Me than a susceptible (S) biotype. Understanding the patterns and mechanisms of cross-resistance in key weeds of rice to bensulfuron-Me and bispyribac-sodium is relevant for the successful deployment of this new herbicide and for the management of herbicide resistance in California rice. Whole-plant bioassays were conducted to compare responses between *E. phyllopogon* and *C. difformis* to bispyribac-sodium and bensulfuron-Me and to detect the involvement of cyt P 450 monooxygenases in *E. phyllopogon* resistance to bensulfuron-Me using the cyt P 450 inhibitors piperonyl butoxide and malathion (previous studies had already shown cyt P 450-mediated resistance to bispyribac-sodium). ALS activity was assayed on leaf exts. from young R and S plants of both species for a range of

bispyribac-sodium and bensulfuron-Me concns. The dose-response studies confirmed cross-resistance in R E. phyllopogon ; min. and max. ratios (R/S) of the GR50 values of resistant to susceptible plants were 9 and >25.5 for bispyribac-sodium and bensulfuron-Me, resp. cyt P 450 contributed to bensulfuron-Me resistance in R E. phyllopogon. C. difformis was also cross-resistant (R/S ratios: >10 for bispyribac-sodium and >26 for bensulfuron-methyl). ALS assays demonstrated that, unlike R E. phyllopogon, cross-resistance in R C. difformis was due to reduced ALS sensitivity. C. difformis ALS was more sensitive to bispyribac-sodium (I50=138.87 nM) than to bensulfuron-Me (I50=6724.56 nM). Also, ALS inhibition in R and S E. phyllopogon was higher with bispyribac-sodium. Thus, binding differences between both herbicides at the target site are suggested. This study reveals that cross-resistance between bensulfuron-Me and bispyribac-sodium in both weeds involves degrdn. enhancement through monooxygenases and target-site alteration.

IT 121-75-5, Malathion

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(effect on cross-resistance to bispyribac-sodium and  
bensulfuron-Me in Echinochloa phyllopogon and Cyperus  
difformis)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L81 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:129861 HCAPLUS

DOCUMENT NUMBER: 136:336582

TITLE: Development of an immunoassay for the residues of the  
herbicide bensulfuron-methyl

AUTHOR(S): Lee, Jae Koo; Ahn, Ki Chang; Park, Oee Sook; Ko, Yong  
Kwan; Kim, Dae-Whang

CORPORATE SOURCE: Departments of Agricultural Chemistry and Chemistry,  
Chungbuk National University, Cheongju, 361-763, S.  
Korea

SOURCE: Journal of Agricultural and Food Chemistry (2002),  
50(7), 1791-1803  
CODEN: JAFCAU; ISSN: 0021-8561

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To develop a competitive indirect ELISA based on polyclonal antibodies for the detection of the sulfonylurea herbicide bensulfuron-Me, seven structurally related haptens were synthesized. Four of them mimicking the target analyte were conjugated to keyhole limpet hemocyanin by the N-hydroxysuccinimide activated ester method to use as immunogens, and all of them were conjugated to bovine serum albumin to use as plate-coating antigens. Polyclonal antibodies raised in rabbits and the coating antigens were screened and selected for the assay in simple homologous and heterologous ELISA formats. Three sensitive heterologous ELISAs were selected and optimized, showing the av. IC50 values of bensulfuron-Me as low as 0.17, 0.09, and 0.09 ng/mL, the detection ranges of 0.04-0.60, 0.01-0.60, and 0.04-0.25 ng/mL, and the lowest detection limits of 0.03, 0.002, and 0.03 ng/mL, resp. The cross-reactivities of other sulfonylurea herbicides and metabolites of bensulfuron-Me to the antibodies were less than 15% in the two assays. Recoveries from the analyte-fortified water samples in assay I were in the range of 81-125% by simple diln. The correlation between the ELISA and HPLC was 0.999 (n = 15) with a slope of 1.37 in the anal. of groundwater samples fortified with bensulfuron-Me. The results obtained strongly indicate that the ELISA can be a highly sensitive and convenient tool for detecting bensulfuron-Me residues in agricultural and environmental samples.

IT 108-30-5, Succinic anhydride., reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(haptén prepn. for immunoassay for residues of bensulfuron)



-Me)  
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L81 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2000:422311 HCAPLUS  
DOCUMENT NUMBER: 133:161646  
TITLE: Effect of variation of *Klebsiella pneumoniae* acetolactate synthase expression on metabolic flux redistribution in *Escherichia coli*  
AUTHOR(S): Yang, Yea-Tyng; Peredelchuk, M.; Bennett, George N.; San, Ka-Yiu  
CORPORATE SOURCE: Department of Bioengineering and Chemical Engineering, Institute of Biosciences and Bioengineering, Rice University, Houston, TX, 77005-1892, USA  
SOURCE: Biotechnology and Bioengineering (2000), 69(2), 150-159  
CODEN: BIBIAU; ISSN: 0006-3592  
PUBLISHER: John Wiley & Sons, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB *Escherichia coli* strains carrying the *Bacillus subtilis* acetolactate synthase (ALS) gene were previously shown to produce less acetate with higher ATP yields. Metabolic flux anal. was used to show that excess pyruvate was channeled into the less inhibitory product, acetoin. To further understand the role of intrinsic enzymic properties and the effect of variations in enzyme levels in the alternation of metabolic fluxes, a chromosomal integrant of the *Klebsiella pneumoniae* ALS gene was constructed. The reported in vitro Michaelis-Menten consts. (Km) for the *Bacillus* and the *Klebsiella* ALS are 13.0 mM and 8.0 mM, resp. Furthermore, expression of the *Klebsiella* ALS is under the control of an inducible trp promoter system. Shake-flask expts. showed a linear induction response (the ALS activity changes from about 9 to 223 U/mg of protein when the inducer concn. [IAA] varied from 0 to 40 mg/L). Chemostat expts. showed a similar induction response. Interactions between the branched reactions catalyzed by the PFL, LDH, and the ALS enzymes at the pyruvate node were examd. The results indicate the importance of in vivo enzyme activities in the redistribution of metabolic fluxes.

IT 110-15-6, Succinic acid, biological studies  
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)  
(variation effects of *Klebsiella pneumoniae* **acetolactate synthase** expression on metabolic flux redistribution in *Escherichia coli*)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L81 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1998:548779 HCAPLUS  
DOCUMENT NUMBER: 129:286913  
TITLE: Antidote effect of MEIA against chlorsulfuron  
AUTHOR(S): Georgiev, G. Ts.; Iliev, Ljubomir; Karanov, Emanuil  
CORPORATE SOURCE: Acad. M. Popov Inst. Plant Physiol., Sofia, 1113, Bulg.  
SOURCE: Bulgarian Journal of Plant Physiology (1996), 22(3-4), 66-73  
CODEN: BJPPFV; ISSN: 1310-4586  
PUBLISHER: Acad. M. Popov Institute of Plant Physiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Greenhouse studies were conducted to evaluate potential herbicide safener for protection of corn from phytotoxic injuries caused by chlorsulfuron

[chem. name N1-(2-chlorosulfonylphenyl)-N2-(4-methoxy-6-methyl-1,3,5-triazin-5-yl)urea; com. name Glean-75, DuPont]. The .beta.-monomethyl ester of itaconic (methylenesuccinic) acid (MEIA) removed considerably the herbicide effect of chlorsulfuron on leaf pigment and protein content, photosynthetic activity and the maize plants height, fresh and dry wt.

IT 7338-27-4, Itaconic acid .beta.-methyl ester

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(antidote effect of MEIA against chlorsulfuron)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L81 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:629572 HCAPLUS

DOCUMENT NUMBER: 127:274002

TITLE: Basis for thifensulfuron-insecticide synergism in soybeans (Glycine max) and corn (Zea mays)

AUTHOR(S): Ahrens, William H.; Panaram, William R.

CORPORATE SOURCE: Dep. of Plant Sci., North Dakota State Univ., Fargo, ND, 58105, USA

SOURCE: Weed Science (1997), 45(5), 648-653

CODEN: WEESA6; ISSN: 0043-1745

PUBLISHER: Weed Science Society of America

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fresh wt. redns. of greenhouse-grown soybeans and corn treated with postemergence thifensulfuron at 4.4 g ai ha<sup>-1</sup> were synergistically enhanced when the herbicide was mixed with formulated chlorpyrifos or malathion insecticides, but the enhancement was not obsd. with formulated methomyl insecticide. Thifensulfuron plus formulants of either chlorpyrifos or malathion reduced fresh wts. no more than did the herbicide applied alone. Growth rate of hydroponically grown soybeans was reduced by root-applied thifensulfuron in combination with a foliar-applied formulation of chlorpyrifos or malathion, but not methomyl. Postemergence-applied thifensulfuron reduced the growth rate of hydroponically grown soybeans and corn with chlorpyrifos, malathion, or methomyl applied postemergence 1 d before thifensulfuron and with procedures identical to those used for absorption, translocation, and metab. expts. None of the insecticides applied 1 d before thifensulfuron altered foliar absorption of 14C-thifensulfuron or its translocation in unifoliolate soybeans or three-leaf corn. Thin-layer chromatog. of soybean exts. revealed one primary thifensulfuron metabolite, presumably the deesterified free acid. 14C-thifensulfuron metab. in corn produced about five unidentified metabolites in appreciable amts. Levels of unmetabolized 14C-thifensulfuron 24 h after herbicide application were highest in insecticide-treated soybeans and corn. Over all expts., enhancement of injury and inhibition of thifensulfuron metab. generally were greatest in soybeans with chlorpyrifos but were greatest in corn with chlorpyrifos or malathion. Synergistic enhancement of thifensulfuron injury to soybeans and corn by chlorpyrifos and malathion appears to result from insecticide inhibition of thifensulfuron detoxication.

IT 121-75-5, Malathion

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (mechanism of enhancement of thifensulfuron injury to soybean and corn by insecticides)

L81 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:573009 HCAPLUS

DOCUMENT NUMBER: 121:173009

TITLE: Malathion antagonizes metabolism-based chlorsulfuron resistance in Lolium rigidum

AUTHOR(S): Christopher, John T.; Preston, Christopher; Powles,

CORPORATE SOURCE: Stephen B.  
Waite Agric. Res. Inst., Univ. Adelaide, Glen Osmond,  
5064, Australia

SOURCE: Pesticide Biochemistry and Physiology (1994), 49(3),  
172-82  
CODEN: PCBPBS; ISSN: 0048-3575

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A biotype of *Lolium rigidum* Gaud. (SLR31) is resistant to the sulfonylurea herbicide chlorsulfuron, despite having a herbicide-sensitive target site, acetolactate synthase. This biotype is able to metabolize the herbicide at a faster rate than a susceptible biotype. Seedlings of this biotype treated with chlorsulfuron in combination with the organophosphate insecticide malathion exhibited greatly increased mortality and reduced dry wt. compared to seedlings treated with chlorsulfuron alone. The chlorsulfuron LD50 for resistant biotype SLR31 decreased from 293.5 g ha<sup>-1</sup> in the absence of malathion to 84.6 g ha<sup>-1</sup> in the presence of 1000 g ha<sup>-1</sup> malathion. The LD50 for as susceptible biotype was also reduced from 7.6 g ha<sup>-1</sup> in the absence of malathion to 0.9 g ha<sup>-1</sup>. Excised seedlings of the resistant biotype metabolized [phenyl-U-14C]chlorsulfuron in the culm tissue nearest the meristem faster than the susceptible biotype. However, when the herbicide was given in combination with malathion, metab. was dramatically reduced in both biotypes. In seedlings of the resistant biotype given [phenyl-U-14C]chlorsulfuron alone 83.5  $\pm$  2.3% of the herbicide taken into the culms tissue was metabolized after 9 h. However, when the herbicide was given in combination with 70  $\mu$ M malathion, only 13.0  $\pm$  2.2% [phenyl-U-14C]chlorsulfuron was metabolized after 9 h. Thus, malathion increases chlorsulfuron toxicity for *L. rigidum* by inhibiting herbicide metab. As malathion has previously been shown to inhibit cytochrome P 450-dependent monooxygenase-catalyzed primisulfuron metab. by *Zea mays* microsomes, this result supports the hypothesis that chlorsulfuron metab. in *L. rigidum* may be mediated by a cytochrome P 450 isoenzyme. Other cytochrome P 450 inhibitors, piperonyl butoxide and tetcyclasis, did not increase chlorsulfuron toxicity for either resistant or susceptible *L. rigidum* biotypes, while 1-aminobenzotriazole caused only a small increase in mortality and a small redn. in [14C]chlorsulfuron metab. in the resistant biotype.

IT 121-75-5, Malathion  
RL: BIOL (Biological study)  
(chlorsulfuron metab. in *Lolium rigidum* inhibition by)

L81 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1992:53218 HCAPLUS

DOCUMENT NUMBER: 116:53218

TITLE: Chlorsulfuron influence on amino acid composition of corn and cotton seedlings

AUTHOR(S): Barashkin, V. A.; Borovinskaya, N. I.; Ermakova, I. P.

CORPORATE SOURCE: Middle-Asian Sci. Res. Inst. Phytopathol., Tashkent, USSR

SOURCE: Uzbekskii Biologicheskii Zhurnal (1958-199?) (1991),  
(4), 25-8  
CODEN: UZBZAZ; ISSN: 0042-1685

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB One-day incubation of 1-day-old corn and cotton seedlings in 1-10  $\mu$ g chlorsulfuron/L inhibited root growth and impaired amino acid formation in a concn.-dependent manner. Transamination, formation of branched-chain amino acids, and ornithine cycle were affected. The aspartic amide path of N transport and storage was esp. affected.

IT 56-84-8, Aspartic acid, biological studies  
RL: BIOL (Biological study)  
(of corn and cotton, chlorsulfuron effect on)

L81 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1987:528999 HCAPLUS  
 DOCUMENT NUMBER: 107:128999  
 TITLE: Amino acid metabolism of Lemna minor L. II.  
 Responses to chlorsulfuron  
 AUTHOR(S): Rhodes, David; Hogan, Austin L.; Deal, Luanne;  
 Jamieson, Gene C.; Haworth, Phillip  
 CORPORATE SOURCE: Dep. Hortic., Purdue Univ., West Lafayette, IN, 47907,  
 USA  
 SOURCE: Plant Physiology (1987), 84(3), 775-80  
 CODEN: PLPHAY; ISSN: 0032-0889  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Chlorsulfuron, an inhibitor of acetolactate synthase (EC 4.1.3.18) markedly inhibited the growth of L. minor at concns. of .gtoreq.10<sup>-8</sup> M, but had no inhibitory effects on growth at 10<sup>-9</sup> M. At growth inhibitory concns., chlorsulfuron caused a pronounced increase in total free amino acid levels within 24 h. Valine, leucine, and isoleucine, however, became smaller percentages of the total free amino acid pool as the concn. of chlorsulfuron was increased. At concns. of chlorsulfuron of .gtoreq.10<sup>-8</sup> M, a new amino acid was accumulated in the free pool. This amino acid was identified as .alpha.-amino-n-butyrate by chem. ionization and electron impact gas chromatog.-mass spectrometry. The amt. of .alpha.-amino-n-butyrate increased from undetectable levels in untreated plants, to as high as 840 nmoles/g fresh wt. (2.44% of the total free pool) in plants treated with 10<sup>-4</sup> M chlorsulfuron for 24 h. The accumulation of this amino acid was completely inhibited by methionine sulfoximine. Chlorsulfuron did not inhibit the methionine sulfoximine induced accumulations of valine, leucine, and isoleucine, supporting the idea that the accumulation of the branched-chain amino acids in methionine sulfoximine treated plants is the result of protein turnover rather than enhanced synthesis. Protein turnover may be primarily responsible for the failure to achieve complete depletion of valine, leucine, and isoleucine even at concns. of chlorsulfuron some 104 times greater than that required to inhibit growth. Tracer studies with 15N demonstrate that chlorsulfuron inhibits the incorporation of 15N into valine, leucine, and isoleucine. The .alpha.-amino-n-butyrate accumulated in the presence of chlorsulfuron and [15N]H4<sup>+</sup> was heavily labeled with 15N at early time points and appeared to be derived by transamination from a rapidly labeled amino acid such as glutamate or alanine. Apparently, chlorsulfuron inhibition of acetolactate synthase may lead to accumulation of 2-oxobutyrate in the isoleucine branch of the pathway, and transamination of 2-oxobutyrate to .alpha.-amino-n-butyrate by a constitutive transaminase utilizing either glutamate or alanine as .alpha.-amino-N donors.

IT 56-84-8, biological studies 70-47-3, Asparagine,  
 biological studies

RL: BIOL (Biological study)  
 (of Lemna minor, chlorsulfuron effect on)

=> select hit rn l81 1-11  
 E1 THROUGH E9 ASSIGNED

=> fil reg  
 FILE 'REGISTRY' ENTERED AT 14:01:58 ON 31 OCT 2003  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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 provided by InfoChem.

STRUCTURE FILE UPDATES: 30 OCT 2003 HIGHEST RN 611168-03-7

DICTIONARY FILE UPDATES: 30 OCT 2003 HIGHEST RN 611168-03-7

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>

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=> s el-e9

1 121-75-5/BI  
 (121-75-5/RN)

1 70-47-3/BI  
 (70-47-3/RN)

1 56-84-8/BI  
 (56-84-8/RN)

1 108-30-5/BI  
 (108-30-5/RN)

1 110-15-6/BI  
 (110-15-6/RN)

1 581739-97-1/BI  
 (581739-97-1/RN)

1 581739-98-2/BI  
 (581739-98-2/RN)

1 581747-67-3/BI  
 (581747-67-3/RN)

1 7338-27-4/BI  
 (7338-27-4/RN)

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L82 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN

RN **581747-67-3** REGISTRY

CN ACETOLACTATE SYNTHASE (Wolinella succinogenes strain DSMZ 1740 gene WS0933) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN GenBank CAE10037

CN GenBank CAE10037 (Translated from: GenBank BX571659)

FS PROTEIN SEQUENCE

MF Unspecified

CI MAN

SR GenBank

LC STN Files: CA, CAPLUS

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:287121

L82 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 581739-98-2 REGISTRY  
 CN ACETOLACTATE SYNTHASE LARGE SUBUNIT (Wolinella succinogenes strain DSMZ 1740 gene ILVI) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN GenBank CAE09270  
 CN GenBank CAE09270 (Translated from: GenBank BX571657)  
 FS PROTEIN SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR GenBank  
 LC STN Files: CA, CAPLUS

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
 1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:287121

L82 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 581739-97-1 REGISTRY  
 CN ACETOLACTATE SYNTHASE SMALL SUBUNIT (Wolinella succinogenes strain DSMZ 1740 gene ILVH) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN GenBank CAE09269  
 CN GenBank CAE09269 (Translated from: GenBank BX571657)  
 FS PROTEIN SEQUENCE  
 MF Unspecified  
 CI MAN  
 SR GenBank  
 LC STN Files: CA, CAPLUS

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*  
 1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:287121

L82 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 7338-27-4 REGISTRY  
 CN Butanedioic acid, methylene-, 4-methyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Succinic acid, methylene-, 4-methyl ester (7CI, 8CI)

OTHER NAMES:

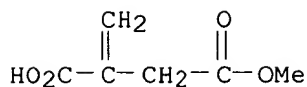
CN .beta.-Methyl itaconate  
 CN Itaconic acid .beta.-methyl ester  
 CN Methyl 3-carboxy-3-butenate  
 CN Methyl itaconate  
 CN NSC 144957  
 FS 3D CONCORD  
 MF C6 H8 O4  
 CI COM

LC STN Files: BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

107 REFERENCES IN FILE CA (1907 TO DATE)  
 11 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 107 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 138:401949  
 REFERENCE 2: 138:337715  
 REFERENCE 3: 137:140200  
 REFERENCE 4: 136:386093  
 REFERENCE 5: 136:200302  
 REFERENCE 6: 136:85810  
 REFERENCE 7: 135:257357  
 REFERENCE 8: 134:340973  
 REFERENCE 9: 134:237481  
 REFERENCE 10: 134:86017

L82 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN  
 RN 121-75-5 REGISTRY  
 CN Butanedioic acid, [(dimethoxyphosphinothioyl)thio]-, diethyl ester (9CI)  
 (CA INDEX NAME)

OTHER NAMES:

CN 8059HC  
 CN American Cyanamid 4,049  
 CN Carbetovur  
 CN Carbetox  
 CN Carbofos  
 CN Carbophos  
 CN Cimexan  
 CN Compound 4049  
 CN Cythion  
 CN Derbac M  
 CN Diethyl mercaptosuccinate S-ester with O,O-dimethyl phosphorodithioate  
 CN ENT 17,034  
 CN ENT 17034  
 CN Ethiolacar  
 CN Etiol  
 CN Extermathion  
 CN Forthion  
 CN Fosfotion  
 CN Fosfotion  
 CN Fyfanon  
 CN Hilthion  
 CN IFO 13140  
 CN Insecticide 4049

CN Insecticide no. 4049  
 CN Karbofos  
 CN Malafor  
 CN Malamar  
 CN Malamar 50  
 CN Malasol  
 CN Malaspray  
 CN Malataf  
 CN Malathine  
 CN Malathion  
 CN Malathion E 50  
 CN Malathion LV Concentrate  
 CN Malathyl  
 CN Malathyne  
 CN Malatol  
 CN Malatol 500CE  
 CN Maldison  
 CN Mavidan  
 CN Mercaptothion  
 CN Moscarda  
 CN NSC 6524  
 CN O,O-Dimethyl S-(1,2-dicarbethoxyethyl) dithiophosphate  
 CN Oleophosphothion  
 CN Organoderm  
 CN Ortho Malathion  
 CN Ovide  
 CN Phosphothion

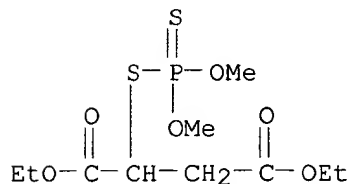
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 MF C10 H19 O6 P S2  
 CI COM  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS,  
 BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,  
 CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB,  
 DDFU, DETHERM\*, DIOGENES, DIPPR\*, DRUGU, EMBASE, HODOC\*, HSDB\*, IFICDB,  
 IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*,  
 PHARMASEARCH, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, ULIDAT, USAN,  
 USPAT2, USPATFULL, VETU, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

9461 REFERENCES IN FILE CA (1907 TO DATE)

56 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

9474 REFERENCES IN FILE CAPLUS (1907 TO DATE)

106 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 139:296365



REFERENCE 2: 139:291626  
 REFERENCE 3: 139:287636  
 REFERENCE 4: 139:287497  
 REFERENCE 5: 139:276337  
 REFERENCE 6: 139:272329  
 REFERENCE 7: 139:272272  
 REFERENCE 8: 139:272271  
 REFERENCE 9: 139:265919  
 REFERENCE 10: 139:265247

L82 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN

RN 110-15-6 REGISTRY

CN Butanedioic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Succinic acid (8CI)

OTHER NAMES:

CN 1,2-Ethanedicarboxylic acid

CN 1,4-Butanedioic acid

CN A 12084

CN Amber acid

CN Asuccin

CN Dihydrofumaric acid

CN Katasuccin

CN NSC 106449

CN NSC 25949

CN Wormwood acid

FS 3D CONCORD

MF C4 H6 O4

CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM\*, DIOGENES, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VETU, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

HO<sub>2</sub>C-CH<sub>2</sub>-CH<sub>2</sub>-CO<sub>2</sub>H

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

23053 REFERENCES IN FILE CA (1907 TO DATE)

2163 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

23071 REFERENCES IN FILE CAPLUS (1907 TO DATE)

9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 139:299744  
 REFERENCE 2: 139:299316  
 REFERENCE 3: 139:299213  
 REFERENCE 4: 139:298616  
 REFERENCE 5: 139:298257  
 REFERENCE 6: 139:297705  
 REFERENCE 7: 139:297000  
 REFERENCE 8: 139:296990  
 REFERENCE 9: 139:296963  
 REFERENCE 10: 139:296930

L82 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN

RN 108-30-5 REGISTRY

CN 2,5-Furandione, dihydro- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Succinic anhydride (8CI)

OTHER NAMES:

CN 2,5-Diketotetrahydrofuran

CN Butanedioic anhydride

CN Dihydro-2,5-furandione

CN NSC 8518

CN Rikacid SA

CN Succinic acid anhydride

CN Succinyl anhydride

CN Succinyl oxide

CN Tetrahydro-2,5-dioxofuran

CN Tetrahydro-2,5-furandione

FS 3D CONCORD

MF C4 H4 O3

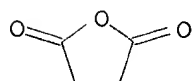
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LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM\*, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

8500 REFERENCES IN FILE CA (1907 TO DATE)

2378 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

8511 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
59 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 139:299223  
REFERENCE 2: 139:297010  
REFERENCE 3: 139:296726  
REFERENCE 4: 139:296721  
REFERENCE 5: 139:296564  
REFERENCE 6: 139:294306  
REFERENCE 7: 139:294303  
REFERENCE 8: 139:293416  
REFERENCE 9: 139:293037  
REFERENCE 10: 139:292923

L82 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN

RN 70-47-3 REGISTRY

CN L-Asparagine (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Asparagine, L- (8CI)

OTHER NAMES:

CN (-)-Asparagine

CN (S)-2,4-Diamino-4-oxobutanoic acid

CN (S)-Asparagine

CN .alpha.-Aminosuccinamic acid

CN Agedoite

CN Altheine

CN Asn

CN Asparagine

CN Asparagine acid

CN Asparamide

CN Aspartamic acid

CN Aspartic acid .beta.-amide

CN Aspartic acid amide

CN Butanoic acid, 2,4-diamino-4-oxo-, (S)-

CN Crystal VI

CN L-.beta.-Asparagine

CN L-2,4-Diamino-4-oxobutanoic acid

CN l-Asparagine

CN L-Aspartamine

CN NSC 82391

FS STEREOSEARCH

DR 7006-34-0, 328-41-6, 32640-57-6

MF C4 H8 N2 O3

CI COM

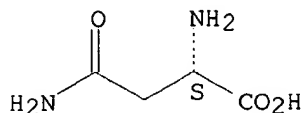
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE, GMELIN\*, HODOC\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, PIRA, PROMT, SPECINFO, TOXCENTER, USPAT2, USPATFULL, VETU

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

13790 REFERENCES IN FILE CA (1907 TO DATE)  
 395 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 13808 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 139:296870  
 REFERENCE 2: 139:291387  
 REFERENCE 3: 139:291148  
 REFERENCE 4: 139:289700  
 REFERENCE 5: 139:289405  
 REFERENCE 6: 139:288087  
 REFERENCE 7: 139:288069  
 REFERENCE 8: 139:287902  
 REFERENCE 9: 139:287706  
 REFERENCE 10: 139:287640

L82 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2003 ACS on STN

RN 56-84-8 REGISTRY

CN L-Aspartic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Aspartic acid, L- (8CI)

OTHER NAMES:

CN (+)-Aspartic acid

CN (S)-Aminobutanedioic acid

CN (S)-Aspartic acid

CN Asparagic acid

CN Asparaginic acid

CN Aspartic acid

CN Butanedioic acid, amino-, (S)-

CN H-Asp-OH

CN L-(+)-Aspartic acid

CN L-Aminosuccinic acid

CN L-Asparagic acid

CN L-Asparaginic acid

CN NSC 3973

CN NSC 79553

FS STEREOSEARCH

DR 6899-03-2, 181119-33-5

MF C4 H7 N O4

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS,  
 BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,  
 CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU,

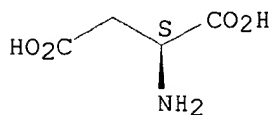
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 IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC,  
 PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA,  
 ULIDAT, USAN, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*, WHO

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry. Rotation (+).



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

33289 REFERENCES IN FILE CA (1907 TO DATE)

1062 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

33323 REFERENCES IN FILE CAPLUS (1907 TO DATE)

3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 139:297000

REFERENCE 2: 139:296963

REFERENCE 3: 139:296870

REFERENCE 4: 139:296546

REFERENCE 5: 139:291387

REFERENCE 6: 139:291309

REFERENCE 7: 139:291148

REFERENCE 8: 139:289700

REFERENCE 9: 139:289028

REFERENCE 10: 139:288770

=>

=> d stat que 18 nos  
L8 STR

=> d stat que 185 nos

L69 STR  
L71 1491 SEA FILE=REGISTRY SSS FUL L69  
L72 571 SEA FILE=REGISTRY ABB=ON PLU=ON ACETOLACTATE SYNTHASE?/CN OR  
SULFURON?  
L73 2955 SEA FILE=HCAPLUS ABB=ON PLU=ON L71  
L74 5398 SEA FILE=HCAPLUS ABB=ON PLU=ON L72 OR ALS(L)INHIBIT? OR  
ACETOLACTATE(W)(SYNTHASE OR SYNTHETASE) OR ?SULFURON?  
L75 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 AND L73  
L77 26550 SEA FILE=REGISTRY ABB=ON PLU=ON SUCCIN?  
L78 221046 SEA FILE=HCAPLUS ABB=ON PLU=ON L77  
L80 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L78(L)L74  
L81 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L80 NOT L75  
L84 41 SEA FILE=HCAPLUS ABB=ON PLU=ON L73(L)(?PESTICID? OR INSECTICI  
D?)  
L85 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L84 NOT (L75 OR L81)

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L85 ANSWER 1 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2003:334318 HCAPLUS  
DOCUMENT NUMBER: 138:333195  
TITLE: Foam generator for preparation of foamable pesticide  
containing nonionic foaming agent adjuvant  
INVENTOR(S): Howe, Michael F.  
PATENT ASSIGNEE(S): Can.  
SOURCE: U.S. Pat. Appl. Publ., 12 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003080445	A1	20030501	US 2001-44883	20011026
PRIORITY APPLN. INFO.:			US 2001-44883	20011026

AB The airtight foamable liq. reservoir of a portable foam generator includes a pressurized air inlet and a discharge tube with one or more venturi openings. As a foamable liq. within the reservoir is discharged from the reservoir by the pressurized air through the discharge tube, pressurized air enters the discharge tube through the venturi opening(s) to create a fluid foam from the foamable liq. For pest control, the foam generator may be utilized to foam and dispense a foamable pesticide that, preferably, includes a non-repellent, nonionic foaming agent adjuvant. The foamed pesticide may be introduced into walls and relatively inaccessible building locations as well as over the entrances of and into passages and habitats used by pests.

IT 58450-52-5, Disodium laureth sulfosuccinate  
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use);  
BIOL (Biological study); USES (Uses)  
(nonionic foaming agent adjuvant for foamable **pesticide**  
contg.)

RN 58450-52-5 HCAPLUS  
CN Poly(oxy-1,2-ethanediyl), .alpha.-(3-carboxy-1-oxosulfopropyl)-.omega.-

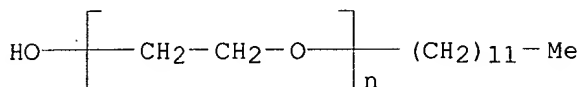
(dodecyloxy)-, disodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 9002-92-0

CMF (C2 H4 O)n C12 H26 O

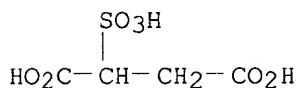
CCI PMS



CM 2

CRN 5138-18-1

CMF C4 H6 O7 S



L85 ANSWER 2 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:15487 HCAPLUS

DOCUMENT NUMBER: 138:51341

TITLE: Deodorants, fungal growth inhibitors, insecticides, and methods for deodorization and growth inhibition of fungi and insect control

INVENTOR(S): Otake, Ryuzaburo; Otake, Hiroyuki; Otake, Keiji

PATENT ASSIGNEE(S): Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

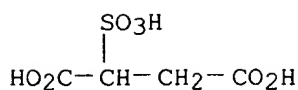
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003002802	A2	20030108	JP 2001-351487	20011116
PRIORITY APPLN. INFO.:			JP 2001-154642	A 20010417
AB Deodorants, fungal growth inhibitors, and insecticides contain surfactants as active ingredients. Surfactants are vaporized for deodorization, fungal growth inhibition, and insect control. A 1:1 mixt. of Apscoap (higher alc. sulfate ester salt) and H2O was placed in a closet at 36.degree. and humidity .gtoreq.80% for 5 days to exhibit deodorant and antifungal effects.				
IT <b>5138-18-1D</b> , Sulfosuccinic acid; alkyl esters, disodium salts RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (surfactants for deodorants, fungal growth inhibitors, and <b>insecticides</b> )				
RN 5138-18-1 HCAPLUS				
CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)				



L85 ANSWER 3 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2002:736579 HCAPLUS  
 DOCUMENT NUMBER: 137:228099  
 TITLE: Polymeric film coatings for seed treatment for  
 controlled release of pesticides  
 INVENTOR(S): Ding, Yiwei; Asrar, Jawed  
 PATENT ASSIGNEE(S): Monsanto Technology, L.L.C., USA  
 SOURCE: U.S. Pat. Appl. Publ., 15 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002134012	A1	20020926	US 2002-79000	20020218
WO 2002080675	A1	20021017	WO 2002-US4699	20020219
WO 2002080675	C1	20021121		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,  
 TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-277503P P 20010321

AB A method of controlling the release rate of an agricultural active ingredient, such as pesticide, from a seed that has been treated with that active ingredient includes providing a seed that has been treated with the active ingredient, applying to the treated seed a film that includes an emulsion of a polymer in a liq. in which both the agricultural active ingredient and the polymer have low levels of soly., and then curing the film to form a water insol. polymer coating on the surface of the treated seed. The agricultural active ingredient is a pesticide selected from the group consisting of herbicides, insecticides, acaricides, fungicides, nematocides, and bactericides. The seed is the seed of a plant selected from the group consisting of corn, peanut, canola/rapeseed, soybean, cucurbits, cotton, rice, sorghum, sugar beet, wheat, barley, rye, sunflower, tomato, sugarcane, tobacco, oats, vegetables, and leaf crops, including transgenic crops. The polymer is selected from the group consisting of polyesters, polycarbonates, co-polymers of styrene, and mixts. thereof.

IT 93610-24-3, Trem LF-40

RL: MOA (Modifier or additive use); USES (Uses)

(polymeric film coatings for seed treatment for controlled release of pesticides, contg.)

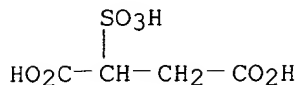
RN 93610-24-3 HCAPLUS

CN Butanedioic acid, sulfo-, C-dodecyl C-2-propenyl ester, sodium salt (9CI)  
 (CA INDEX NAME)

CM 1

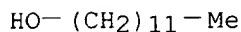


CRN 5138-18-1  
CMF C4 H6 O7 S



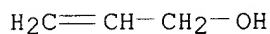
CM 2

CRN 112-53-8  
CMF C12 H26 O



CM 3

CRN 107-18-6  
CMF C3 H6 O



L85 ANSWER 4 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2002:574840 HCAPLUS  
DOCUMENT NUMBER: 137:105187  
TITLE: Pesticide formulation for spreading over water surface  
INVENTOR(S): Hasegawa, Hiroshi  
PATENT ASSIGNEE(S): Syngenta Participations Ag, Switz.  
SOURCE: PCT Int. Appl., 18 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002058468	A1	20020801	WO 2002-EP716	20020124

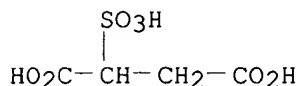
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2001-1992 A 20010125  
AB A pesticide formulation comprises a liq. pesticide active ingredient, Kagalite Balloon (pumice), at least one surfactant providing spreadability and at least one anionic surfactant enhancing emulsifying effect. Said formulation enables the redn. of the amts. of formulations to be applied, the storage vol. during distribution, as well as the prodn. costs thereof in an environmentally friendly manner.  
IT 5138-18-1D, Sulfosuccinic acid, dialkyl derivs., salts

RL: MOA (Modifier or additive use); USES (Uses)  
(surfactant in **pesticide** formulation for spreading over water surface)

RN 5138-18-1 HCAPLUS

CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 5 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:309782 HCAPLUS

DOCUMENT NUMBER: 136:305559

TITLE: Broadcast granular carriers for pesticides and fertilizers comprising diatomaceous earth

INVENTOR(S): Kostka, Stanley J.; Pan, Rennan; Miller, Christopher M.; Pallas, Norman Robert

PATENT ASSIGNEE(S): Rhodia, Inc., USA; Aquatrols Holding Co., Inc.

SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No. 715,726, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6375969	B1	20020423	US 1999-347999	19990706
KR 2000048618	A	20000725	KR 1999-702558	19990325
PRIORITY APPLN. INFO.:			US 1996-715726	B2 19960925

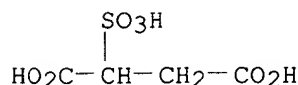
AB This invention relates to certain natural diatomaceous earth granule compns. which can be broadcast, i. e., dry spread on the soil to deliver a pesticide or fertilizer. The granules retain their phys. integrity when spread, and have the unique property to spontaneously disintegrate when irrigation water is applied or rainfall hits the particle. Upon wetting, the particle disintegrates (blooms) to cover the soil surface. This bloom can cover an area many times the original area covered by the granule. The granules have high loadings of the diatomaceous earth, i.e. from about 35 to about 95 wt. percent and contain from about 5 to about 40 wt. percent of a surfactant system which exhibits excellent disintegration; rewetting and binding properties. Bioactive compds. can be loaded at up to 60 wt. percent of the granule. Bioactive compds. may be formulated products or tech. grades and may be homogeneously distributed throughout the granule or spray impregnated onto the granule.

IT **5138-18-1D**, Sulfosuccinic acid, compds.

RL: MOA (Modifier or additive use); USES (Uses)  
(anionic surfactant in diatomite granular carriers for **pesticides** and fertilizers)

RN 5138-18-1 HCAPLUS

CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L85 ANSWER 6 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2002:244619 HCAPLUS  
 DOCUMENT NUMBER: 136:274814  
 TITLE: Dispersants containing alkoxyated aliphatic alcohols, and wettable pesticide powders containing them  
 INVENTOR(S): Gyoutoku, Nami; Ida, Yoshimi; Yoshida, Masao  
 PATENT ASSIGNEE(S): Sanyo Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002097102	A2	20020402	JP 2001-190344	20010622
PRIORITY APPLN. INFO.:			JP 2000-188992	A 20000623
			JP 2000-207762	A 20000710
			JP 2000-219710	A 20000719
			JP 2000-219731	A 20000719

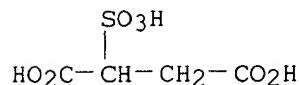
AB The dispersants contain .gtoreq.1 anionic surfactants chosen from aliph. alc.-alkylene oxide adduct sulfates, sulfosuccinates, phosphates, or ether carboxylic acids satisfying specific conditions. The dispersants show high self-dispersibility and low foaming. A wettable powder was prepd. from ethoxylated lauryl alc. Na sulfate 17, dimethoate 40, clay 33, and white carbon 10 wt. parts.

IT **406459-55-0P**, Ethylene oxide-propylene oxide block copolymer lauryl ether diester with sodiosulfosuccinic acid  
 RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (triblock; wettable **pesticide** powders contg. alkoxyated aliph. alcs. as dispersants)

RN **406459-55-0** HCAPLUS  
 CN Oxirane, methyl-, polymer with oxirane, monododecyl ester, C-ester with sulfobutanedioic acid (2:1), block, sodium salt (9CI) (CA INDEX NAME)

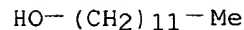
CM 1

CRN 5138-18-1  
 CMF C4 H6 O7 S



CM 2

CRN 112-53-8  
 CMF C12 H26 O

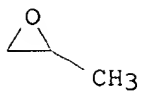


CM 3

CRN 106392-12-5  
CMF (C3 H6 O . C2 H4 O)x  
CCI PMS

CM 4

CRN 75-56-9  
CMF C3 H6 O



CM 5

CRN 75-21-8  
CMF C2 H4 O



IT **87936-93-4P**

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

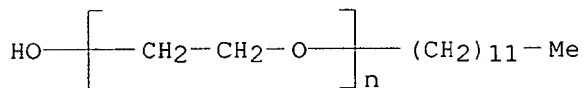
(wetttable **pesticide** powders contg. alkoxylated aliph. alcs.  
as dispersants)

RN 87936-93-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), .alpha.-[3-carboxy-1-oxo-2(or  
3)-sulfopropoxy]-.omega.-(dodecyloxy)-, sodium salt (9CI) (CA INDEX NAME)

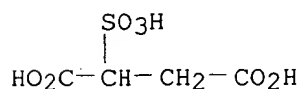
CM 1

CRN 9002-92-0  
CMF (C2 H4 O)n C12 H26 O  
CCI PMS



CM 2

CRN 5138-18-1  
CMF C4 H6 O7 S



L85 ANSWER 7 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 2000:484030 HCAPLUS

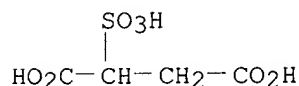
DOCUMENT NUMBER: 133:100906  
 TITLE: Agrochemical pesticides with reduced chemical injury containing antifungal copper compounds and surfactants  
 INVENTOR(S): Akiyama, Masaki; Nabetani, Yoshihiko; Yonemura, Shinji  
 PATENT ASSIGNEE(S): Hokko Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000198710	A2	20000718	JP 1999-1132	19990106
PRIORITY APPLN. INFO.:			JP 1999-1132	19990106

AB The pesticides, which show enhanced pesticidal activity and reduced chem. injury, contain antifungal inorg. Cu compds., nonionic surfactants, and .gtoreq.1 anionic surfactant selected from alkylbenzenesulfonate salt, dialkyl sulfosuccinate salts, naphthalenesulfonate salts, lauryl sulfate salts, and higher alc. sulfate salts and are adjusted to proper pH to prevent crops from chem. injury. Basic Cu chloride 84.1, white carbon 1.0, polyoxyalkylene ethers 1.0, Na dodecylbenzenesulfonate 4.0, CaCO<sub>3</sub> 1.0, and clay 8.9 parts were mixed by a hammer mill to give a wettable powder (pH 6.5). The wettable powder significantly prevented cucumber from damage by Pseudoperonospora cubensis and Sphaerotheca fuliginea without chem. damage to cucumber.

IT **5138-18-1D**, Sulfosuccinic acid, dialkyl esters, salts  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (antifungal Cu compd.-contg. pH-controlled agrochem. **pesticides** contg. nonionic and anionic surfactants with higher activity and reduced chem. injury)

RN 5138-18-1 HCAPLUS  
 CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 8 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1999:222477 HCAPLUS  
 DOCUMENT NUMBER: 130:219462  
 TITLE: Oily preparation for enhancing effectiveness of crop protection products  
 INVENTOR(S): Marcinski, Marek; Naraniecki, Bronislaw; Bekierz, Gerard; Przondo, Jan; Mucha, Jozef; Bodzek, Kamila; Lesisz, Ewa  
 PATENT ASSIGNEE(S): Instytut Ciekkiej Syntezy Organicznej "BLACHOWNIA", Pol.  
 SOURCE: Pol., 4 pp.  
 CODEN: POXXA7  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Polish  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

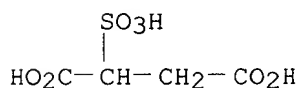
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 168953	B1	19960531	PL 1992-296101	19920928
PRIORITY APPLN. INFO.:			PL 1992-296101	19920928

AB An oily emulsion formulation contg. 74-81% (best 77%) of paraffin oil (viscosity 15-28 mm<sup>2</sup>/s at 50.degree.C, consisting of 25-30% aliph. hydrocarbons, 1.5-2% sulfur and <5 ppm polycyclic arom. hydrocarbons) and 19-26% (best 23%) of an emulsifier is described. The emulsifier consists of 20-26 parts of C8-C24 fatty amines ethoxylated with 3-7 mol ethylene oxide, 16-20 parts of ethanolamine mix (45-65% diethanolamine, 35-55% triethanolamine), 16-20 parts of fatty acid mix (contg. >70% oleic acid), 25-30 parts of d-sorbitol esters with C12-C22 fatty acids, 9-15 parts of Na salts of sulfosuccinic acid monoesters with ethoxylated fatty alcs. (or 8-14 parts of Na salt of sulfosuccinic acid monoester with ethoxylated nonylphenol), and 5 parts of polyoxyethylated C9 alkylphenols with the av. degree of ethoxylation 5 or 9. The formulation is mixed at 45-55.degree.C, homogenized at 55-65.degree.C, cooled to 40.degree.C, and packaged for storage. The formulation is stable during storage from -5 to 45.degree.C. The formulation is easily miscible with water, can be applied in a dose of 1.5 L/ha, eagerly moistens the entire plant leaf surface, and can decrease the concurrent doses of pesticides by 20-30% in treatment of corn, rapeseed, and sugar beet.

IT **29454-16-8D**, Sulfosuccinic acid monosodium salt, esters  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (oily emulsion prepn. for enhancing effectiveness of **pesticides** in plants)

RN 29454-16-8 HCAPLUS

CN Butanedioic acid, sulfo-, monosodium salt (9CI) (CA INDEX NAME)



● Na

L85 ANSWER 9 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:21865 HCAPLUS  
 DOCUMENT NUMBER: 130:106482  
 TITLE: Pesticides that float on water  
 INVENTOR(S): Sekiguchi, Mikio  
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

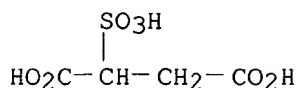
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11001402	A2	19990106	JP 1997-166676	19970610
PRIORITY APPLN. INFO.:			JP 1997-166676	19970610

AB A pesticide is prepd. contg. (1) water-sol. carrier, (2) an inorg. or org. film-forming substance such as cork, (3) a sparingly sol. and non-sol. pesticide, (4) a substance that promotes floating of pesticide, and (5) a surfactant. The pesticide compn. may be packed with a sol. film. This prepn. spreads rapidly on the water surface and effectively controls insects, microorganisms, weeds, etc. in places like rice paddy.

IT **5138-18-1D**, Sulfo succinic acid, salts with metals  
 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)  
 (in floating **pesticides** in rice paddy)

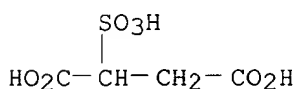
RN 5138-18-1 HCAPLUS

CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 10 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1998:650373 HCAPLUS  
 DOCUMENT NUMBER: 129:286929  
 TITLE: Pesticide application to water surface  
 INVENTOR(S): Kamaya, Hirokazu; Hattori, Shigeo; Suzuki, Shoji  
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10265302	A2	19981006	JP 1997-75070	19970327
PRIORITY APPLN. INFO.:			JP 1997-75070	19970327
AB Granules contg. pesticides, porous carriers, polymeric binders, and surfactants that float on the surface of water (e.g., rice paddies), are disclosed. The carriers may be synthetic resins, saw dust, polyurea, and the binders may be cellulose derivs. like CM-cellulose salts. The surfactant may be dialkyl sulfosuccinate. The granules are rapidly and uniformly distributed in water.				
IT 5138-18-1D, Sulfosuccinic acid, dialkyl derivs.				
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
(application of <b>pesticides</b> with polymeric carriers to rice paddy)				
RN	5138-18-1	HCAPLUS		
CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)				



L85 ANSWER 11 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1998:535679 HCAPLUS  
 DOCUMENT NUMBER: 129:145863  
 TITLE: Fast-acting agrochemical powders containing guanidine derivatives, and method and agents for augmenting the effects  
 INVENTOR(S): Koike, Masahiko; Akayama, Atsuo; Sakai, Chiyo  
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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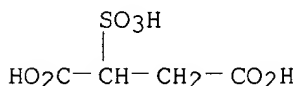
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 JP 10218705      A2      19980818      JP 1997-26955      19970210  
 PRIORITY APPLN. INFO.:      JP 1997-26955      19970210  
 OTHER SOURCE(S):      MARPAT 129:145863

AB The fast-acting agrochem. powders contain insecticidal R1(CH2)nNR2CR3:NX  
 [I; R1 = (un)substituted (hetero)cyclyl; R2 = H, (un)substituted  
 hydrocarbyl; R3 = primary, secondary, or tertiary amino; X =  
 electron-attracting group; n = 0, 1] or their salts and sulfonate salts.  
 Effects of agrochem. powders contg. I or their salts are augmented by  
 adding agents contg. sulfonate salts, such as Na alkylbenzene sulfonates,  
 a-olefin sulfonates, Igepon, sulfosuccinates, etc. Insecticidal activity  
 of a powder contg. (E)-1-(2-chlorothiazol-5-ylmethyl)-3-methyl-2-  
 nitroguanidine, Newkalgen EP 60P (II), white carbon, and CaCO3 against 3rd  
 instar larvae of Nilaparvata lugens inoculated on rice seedlings was  
 higher than than of a control powder contg. no II.

IT **5138-18-1D**, Sulfosuccinic acid, diesters  
 RL: AGR (Agricultural use); MOA (Modifier or additive use); BIOL  
 (Biological study); USES (Uses)  
 (agrochem. powders contg. **insecticidal** guanidine derivs. and  
 sulfonate surfactants as effect enhancers)

RN 5138-18-1 HCAPLUS

CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 12 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:65443 HCAPLUS

DOCUMENT NUMBER: 128:137544

TITLE: Pesticides readily dispersible in water

INVENTOR(S): Yoshimoto, Akihiro; Sagawa, Takao; Sekikuchi, Mikio

PATENT ASSIGNEE(S): Eiko Kasei K. K., Japan; Nippon Kayaku Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10017410	A2	19980120	JP 1996-165453	19960626

PRIORITY APPLN. INFO.:      JP 1996-165453      19960626

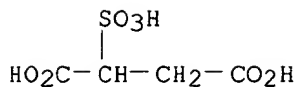
AB Sulfosuccinate alkyl ester salts or naphthalene sulfonate salt condensates  
 are used as surfactants in pesticide compns. which float on the surface of  
 water in places like rice paddies, reservoir of fish farm, hot springs,  
 and swimming pool. The pesticide compns. are distributed in wide area of  
 water surface and released in adequate sizes of granules and particles to  
 control weeds, microorganisms, insects, etc. For example, dioctyl sodium  
 sulfosuccinate and sodium naphthalene sulfonate and CM-cellulose are  
 included in the compn.

IT **5138-18-1**, Sulfosuccinic acid  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (alkyl ester, salt; surfactants in **pesticide** compns. readily  
 dispersible in water)

RN 5138-18-1 HCAPLUS

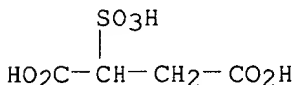
CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)





L85 ANSWER 13 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1997:650225 HCAPLUS  
 DOCUMENT NUMBER: 127:274179  
 TITLE: Dialkyl sulfosuccinate insecticide and acaricide -  
 PATENT ASSIGNEE(S): H & I Agritech, Inc., USA  
 SOURCE: PCT Int. Appl., 11 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

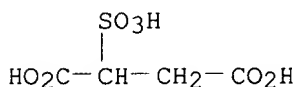
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9734479	A1	19970925	WO 1997-US4373	19970319
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6103763	A	20000815	US 1996-625527	19960328
CA 2249264	AA	19970925	CA 1997-2249264	19970319
AU 9725342	A1	19971010	AU 1997-25342	19970319
PRIORITY APPLN. INFO.:			US 1996-13714P	P 19960320
			US 1996-625527	A 19960328
			WO 1997-US4373	W 19970319
AB	An environmentally safe method of killing insects and arachnids is disclosed herein. Insects and arachnids can be killed by the direct application of a soln. of surfactant comprising 0.01-10 % alkali metal or ammonium salt of C6-14 dialkyl sulfosuccinate. The alkali metal or ammonium salt of dialkyl sulfosuccinate can be applied with attractants to surfaces near or at surfaces where the elimination of arachnids or insects is needed.			
IT	<b>5138-18-1D</b> , Sulfosuccinic acid., C6-14 dialkyl derivs., alkali metal or ammonium salts RL: AGR (Agricultural use); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) ( <b>insecticide</b> and acaricide)			
RN	5138-18-1 HCAPLUS			
CN	Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)			



L85 ANSWER 14 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1997:410294 HCAPLUS  
 DOCUMENT NUMBER: 127:30414  
 TITLE: Floating pesticide compositions for application to water surfaces

INVENTOR(S): Sekiguchi, Mikio; Igawa, Noboru  
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

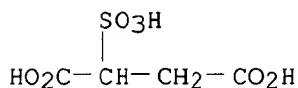
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 09118602	A2	19970506	JP 1996-218153	19960801
PRIORITY APPLN. INFO.:				JP 1995-232125	19950818
AB	The compns. that provide efficient scattering of active ingredients into water, contain (A) water-sol. carriers, (B) (in)org. film-forming substances that have lower water-dissoln. rates than the carriers, (C) active pesticide ingredients, (D) surfactants, and (E) H <sub>2</sub> O. The compns. are obtained by molding mixts. of A, B, D, and E, drying the mixts. to obtain granules, and adsorbing C on the granules; or by molding mixts. of A, B, and E, drying the mixts. to obtain granules, and adsorbing C and D on the granules. The compns. are suitable for application to paddy fields. A herbicide compn. contg. prometryn 5.0, xanthan gum 0.5, Newkalgen BX-C (anionic surfactant) 4.0, and KCl 91.5 wt. parts was spread on a paddy field at 50 g/0.5-are to show total control of Echinochloa crus-galli.				
IT	5138-18-1D, dialkyl esters, sodium salts RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (floating <b>pesticide</b> compns. contg. water-sol. carriers, film-forming substances, and surfactants for application to water surfaces)				
RN	5138-18-1 HCAPLUS				
CN	Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)				



L85 ANSWER 15 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1995:998075 HCAPLUS  
 DOCUMENT NUMBER: 124:48345  
 TITLE: Pesticide synergistic permeating stabilizer  
 INVENTOR(S): Li, Xinghuan; He, Dayu  
 PATENT ASSIGNEE(S): Yunnan Resource Development and Utilization Institute, Peop. Rep. China  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 4 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	CN 1104029	A	19950628	CN 1993-120767	19931225
PRIORITY APPLN. INFO.:				CN 1993-120767	19931225
AB	The title formulation is prepd. by mixing binding agent Me salicylate (10-40%, wt.%) and penetrating agent JFC or sodium sulfosuccinate or both (60-90%). It is suitable to use as a stabilizer for neutral or acidic composite pesticides to enhance their insecticidal activities, stickiness and permeability toward insects.				

IT 20526-58-3  
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)  
 (stabilizer for insecticidal compns.)  
 RN 20526-58-3 HCAPLUS  
 CN Butanedioic acid, sulfo-, sodium salt (9CI) (CA INDEX NAME)



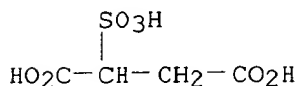
●x Na

L85 ANSWER 16 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1995:712208 HCAPLUS  
 DOCUMENT NUMBER: 123:77140  
 TITLE: Manufacture of granular pesticides  
 INVENTOR(S): Ogawa, Masao; Tagami, Manabu; Ootsubo, Toshiro  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07126106	A2	19950516	JP 1993-270310	19931028
PRIORITY APPLN. INFO.:			JP 1993-270310	19931028

AB A granular compn. consists of (1) a solid pesticide, (2) a sulfosuccinic acid diester surfactant, and (3) > 1 compd. selected from the group comprising sulfonic acid-type surfactants and unsatd. carboxylic acid surfactants. The granules are readily produced by extruding the mist through a screen. In water, these granules are degraded and well dispersed.

IT 5138-18-1D, Sulfosuccinic acid, diesters  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (surfactant; manuf. of granular pesticide compns. with)  
 RN 5138-18-1 HCAPLUS  
 CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 17 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1993:533494 HCAPLUS  
 DOCUMENT NUMBER: 119:133494  
 TITLE: Polymer film-packaged pesticidal preparations for application to the surface of water.  
 INVENTOR(S): Nabeya, Yoshihiko; Kurotsu, Juichi; Noguchi, Tatsuo; Yonemura, Shinji  
 PATENT ASSIGNEE(S): Hokko Chem Ind Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05155709	A2	19930622	JP 1991-341812	19911202
JP 3340755	B2	20021105		

PRIORITY APPLN. INFO.: JP 1991-341812 19911202

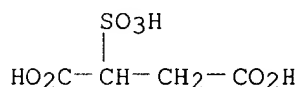
AB Pesticidal prepns. (10-100 g, av. particle size .ltoreq.50 .mu.m) contg. anionic surfactants and (in)org. carriers are packaged in bags made of water-sol. polymer films. The packaged prepns. are easily dispersed in paddy, etc. Phenothiol 1.05, simetryn 2.25, Na lauryl sulfate 5.0, white C 2.0, and clay 89.7 parts were mixed, packaged in poly(vinyl alc.) film, and applied to paddy, to show 100% herbicidal activity without damaging rice, vs. less activity, without Na lauryl sulfate.

IT **5138-18-1D**, Sulfosuccinic acid, dialkyl esters, sodium salts  
 RL: BIOL (Biological study)

(**pesticidal** granules contg., packaged into water-sol. polymer films, for paddy)

RN 5138-18-1 HCAPLUS

CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 18 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:488939 HCAPLUS

DOCUMENT NUMBER: 119:88939

TITLE: Pesticide activity enhancers containing alkylglycoside surfactants.

INVENTOR(S): Azuma, Riichi; Hioki, Juichi; Iwasaki, Tetsuharu

PATENT ASSIGNEE(S): Kao Corp, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05043403	A2	19930223	JP 1991-199019	19910808

PRIORITY APPLN. INFO.: JP 1991-199019 19910808

AB Pesticide activity enhancers contain A(Gm)[(BO)aX]b [Gm = sugar residue from removal of all H of nonglycosidic OH and glycosidic OH of C5-6 reducing sugar or its condensate; m (degree of condensation) = 1-10 (av.); A = R1(OR2)n bound to Gm by O-glycoside linkage; R1 = straight-chain or branched C1-18 alkyl, alkenyl, hydroxyalkyl; R2 = C2-4 alkylene; n = 0-100 (av.); B = C2-4 alkylene bound to O of nonglycosidic OH of Gm by ether linkage and bound to X at the other end; a [(mol. of alkylene oxide added to nonglycosidic OH of the C5-6 reducing sugar or its condensate)/b] = 0-10; b = no. of nonglycosidic OH of the C5-6 reducing sugar or its condensate; X = H, nonionic, anionic, or cationic group] as the essential ingredients. Com. Herbi-Ace (water-sol. herbicide powder) was dild. 300 times, mixed with 0.2% C12-14 alkylglucoside, and applied to Digitaria

ciliaris to show 100.0% herbicidal effect, vs. 67.5%, for Herbi-Ace itself.

IT 148195-96-4 148196-16-1 148196-34-3

RL: BIOL (Biological study)

(pesticide activity enhancer)

RN 148195-96-4 HCAPLUS

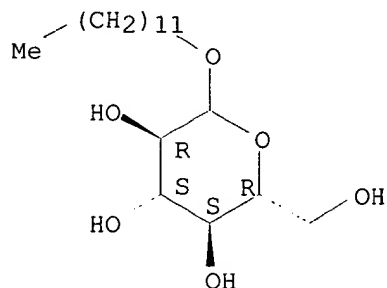
CN D-Glucopyranoside, dodecyl, hydrogen sulfobutanedioate, sodium salt (9CI)  
(CA INDEX NAME)

CM 1

CRN 27836-64-2

CMF C18 H36 O6

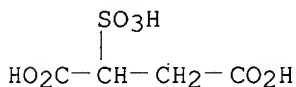
Absolute stereochemistry.



CM 2

CRN 5138-18-1

CMF C4 H6 O7 S



RN 148196-16-1 HCAPLUS

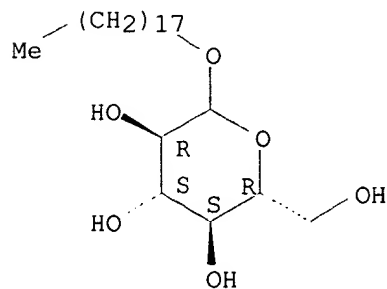
CN D-Glucopyranoside, octadecyl, hydrogen sulfobutanedioate, sodium salt  
(9CI) (CA INDEX NAME)

CM 1

CRN 27836-65-3

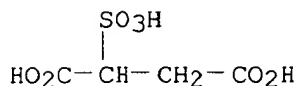
CMF C24 H48 O6

Absolute stereochemistry.



CM 2

CRN 5138-18-1  
CMF C4 H6 O7 S

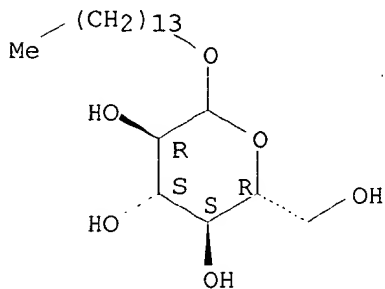


RN 148196-34-3 HCAPLUS  
CN D-Glucopyranoside, tetradecyl, hydrogen sulfobutanedioate, sodium salt  
(9CI) (CA INDEX NAME)

CM 1

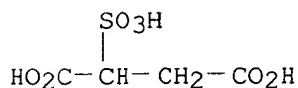
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CMF C20 H40 O6

Absolute stereochemistry.



CM 2

CRN 5138-18-1  
CMF C4 H6 O7 S



L85 ANSWER 19 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1992:628476 HCAPLUS  
DOCUMENT NUMBER: 117:228476  
TITLE: Pesticidal gelatin capsules for paddy.  
INVENTOR(S): Tokunaga, Hironori; Mogi, Takeo; Inayoshi, Yukihiro;  
Kikuta, Masaji; Kubo, Ryozi; Fukazawa, Takayuki  
PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan; Miyagi Chemical  
Industrial Co., Ltd.; Fuji Capsule K. K.  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04134002	A2	19920507	JP 1990-255353	19900927
JP 2999535	B2	20000117		

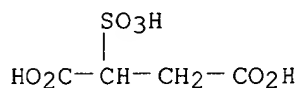
PRIORITY APPLN. INFO.: JP 1990-255353 19900927

AB The title capsules, which disintegrate easily in paddy water at low temps. releasing the active ingredient, contain oily compns. comprising solvents and surfactants, encapsulated into gelatin. Et 2-methyl-4-chlorophenoxybutyrate 15, xylene 57, cyclohexane 20, polyoxyethylene alkylphenyl ether 2, polyoxyethylene sorbitan stearate 1, and Na alkylbenzenesulfonate 5 parts were mixed and encapsulated into a membrane comprising gelatin 80, starch 20, glycerin 40, and citric acid 2 parts. The capsules, applied to water at 15 and 25.degree., showed disintegration times of 50 and 7 min, resp., vs. no disintegration, for controls.

IT **5138-18-1D**, Sulfosuccinic acid, dialkyl esters  
RL: BIOL (Biological study)  
(gelatin capsules contg., for paddy **pesticides**)

RN 5138-18-1 HCAPLUS

CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 20 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:138070 HCAPLUS

DOCUMENT NUMBER: 114:138070

TITLE: Foaming agent for pesticides and fertilizers

INVENTOR(S): Woogerd, Stanley M.

PATENT ASSIGNEE(S): Foam Innovations, Inc., USA

SOURCE: PCT Int. Appl., 9 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9007374	A1	19900712	WO 1990-US81	19900103
W: AU, CA				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
US 4997592	A	19910305	US 1989-292938	19890103
AU 9050211	A1	19900801	AU 1990-50211	19900103

PRIORITY APPLN. INFO.: US 1989-292938 19890103  
WO 1990-US81 19900103

AB A compn. comprising Na 2-ethylhexyl sulfate 17.4 - 21.4, tetra-Na N-(1,2-dicarboxyethyl)-N-octadecyl sulfosuccinamate 9.0 - 13.0, Na dioctyl sulfosuccinate 0.1 - 4.1, cocodiethanolamide 2.7 - 6.7, triethanolamine alkylaryl sulfonate 13.4 - 17.4, dihexyl Na sulfosuccinate 29.4 - 33.4, iso-Pr alc. 5.4 - 9.4, and H<sub>2</sub>O 6.6 - 10.6% by wt. is a foaming agent for pesticide formulations.

IT **37767-39-8**  
RL: BIOL (Biological study)  
(foaming agent contg., for **pesticides** and fertilizers)

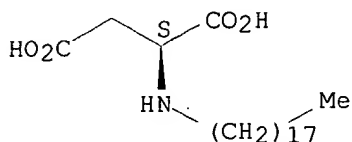
RN 37767-39-8 HCAPLUS

CN L-Aspartic acid, N-(3-carboxy-1-oxosulfopropyl)-N-octadecyl-, tetrasodium salt (9CI) (CA INDEX NAME)

CM 1

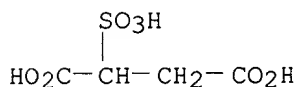
CRN 70021-38-4  
CMF C22 H43 N O4

Absolute stereochemistry.



CM 2

CRN 5138-18-1  
CMF C4 H6 O7 S



L85 ANSWER 21 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1989:589614 HCAPLUS  
DOCUMENT NUMBER: 111:189614  
TITLE: Sulfosuccinate ester-containing pesticide granules  
with improved spreading in water  
INVENTOR(S): Watabe, Chuichi; Tooyama, Akira  
PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01070404	A2	19890315	JP 1987-226470	19870911

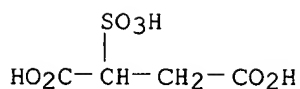
PRIORITY APPLN. INFO.: JP 1987-226470 19870911  
OTHER SOURCE(S): MARPAT 111:189614

AB Pesticide granules, which quickly disperse even in hard water, contain RO(C2H4O)nOCCH(SO3M12)CH2CO2M (I; R = aryl, C8-12 alkylphenyl, C1-18 alkyl, H; M = H, ammonium, alkali metal; M1 = alkali metal; n = 2-30). Poly(oxyethylene) nonylphenyl ether was treated with maleic anhydride at 120.degree. for 3 h under N and treated with aq. Na2SO3 soln. at 80.degree. for 4 h to give I (R = nonylphenyl, M = H, M1 = Na, n = .apprx.8) (II). p-Nitrophenyl 2,4,6-trichlorophenyl ether 7, bentonite 25, clay 66.7, Na ligninsulfonate 1, and 3.1% II aq. soln. 20 parts were mixed and extruded to give granules, which showed good dispersion in hard water.

IT 5138-18-1DP, Sulfosuccinic acid, monoesters with polyethylene glycol derivs., salts 82730-93-6P 123397-20-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, for granulation of pesticides)

RN 5138-18-1 HCAPLUS  
CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)

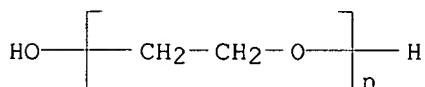




RN 82730-93-6 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.-[3-carboxy-1-oxo-2(or  
 3)-sulfopropyl]-.omega.-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)

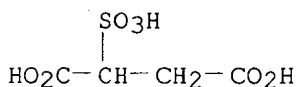
CM 1

CRN 25322-68-3  
 CMF (C2 H4 O)n H2 O  
 CCI PMS



CM 2

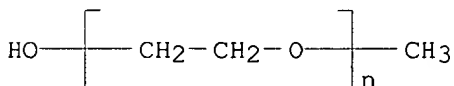
CRN 5138-18-1  
 CMF C4 H6 O7 S



RN 123397-20-6 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.-(3-carboxy-1-oxosulfopropyl)-.omega.-  
 methoxy-, monosodium salt (9CI) (CA INDEX NAME)

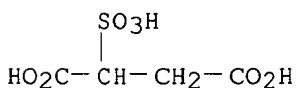
CM 1

CRN 9004-74-4  
 CMF (C2 H4 O)n C H4 O  
 CCI PMS



CM 2

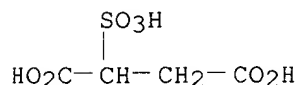
CRN 5138-18-1  
 CMF C4 H6 O7 S



ACCESSION NUMBER: 1989:492344 HCAPLUS  
 DOCUMENT NUMBER: 111:92344  
 TITLE: Aqueous pesticidal formulations made of pesticidal dispersions combined with water-soluble pesticides  
 INVENTOR(S): Albrecht, Konrad; Frisch, Gerhard  
 PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 4 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3719264	A1	19881229	DE 1987-3719264	19870610
EP 297305	A1	19890104	EP 1988-108871	19880603
EP 297305	B1	19911218		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
AT 70403	E	19920115	AT 1988-108871	19880603
ES 2028945	T3	19920716	ES 1988-108871	19880603
JP 63310801	A2	19881219	JP 1988-140653	19880609
US 5152823	A	19921006	US 1991-641068	19910114
PRIORITY APPLN. INFO.:			DE 1987-3719264	19870610
			EP 1988-108871	19880603
			US 1988-203946	19880608

AB The formulations comprise .gtoreq.2 disperse pesticides and .gtoreq.1 water-sol. pesticide. The surfactants used in the formulations are alkyl ether sulfates combined with ethoxylated fatty alcs. and sulfosuccinic acid semiesters. A formulation comprised alkyl ether sulfate 12, ethoxylated fatty alc. 0.5, HOE S 1728 13, diuron 17, simazine 11, glufosinate 9, and H2O to 100%.  
 IT 5138-18-1D, Sulfosuccinic acid, semi esters, alkali metal salts  
 RL: BIOL (Biological study)  
 (pesticide formulations contg.)  
 RN 5138-18-1 HCAPLUS  
 CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 23 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1984:565599 HCAPLUS  
 DOCUMENT NUMBER: 101:165599  
 TITLE: Liquid pesticide composition in the form of suspension concentrates  
 INVENTOR(S): Albrecht, Konrad; Frisch, Gerhard  
 PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 15 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

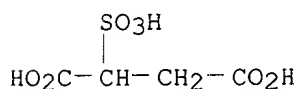
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3240862	A1	19840510	DE 1982-3240862	19821105
EP 110174	A1	19840613	EP 1983-110887	19831102

EP 110174 B1 19870107  
 R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE  
 AT 24652 E 19870115 AT 1983-110887 19831102  
 ZA 8308198 A 19840627 ZA 1983-8198 19831103  
 DD 213345 A5 19840912 DD 1983-256309 19831103  
 DK 8305076 A 19840506 DK 1983-5076 19831104  
 DK 162803 B 19911216  
 DK 162803 C 19920504  
 AU 8321000 A1 19840510 AU 1983-21000 19831104  
 AU 562459 B2 19870611  
 JP 59098002 A2 19840606 JP 1983-206083 19831104  
 JP 03048881 B4 19910725  
 BR 8306069 A 19840612 BR 1983-6069 19831104  
 CA 1226210 A1 19870901 CA 1983-440437 19831104  
 US 4804399 A 19890214 US 1986-818891 19860114  
 PRIORITY APPLN. INFO.: DE 1982-3240862 19821105  
 EP 1983-110887 19831102

AB Pesticidal suspension concs. with enhanced stability upon storage consists of a sulfosuccinic acid half ester alkali salt prepd. by transformation of an ethoxylated condensation product of an alkylphenol and formaldehyde with maleic acid anhydride and an alkali sulfite, in addn. to a lignosulfonate alkali salt and a swellable alk. with silicate in combination with active ingredients, etc. Thus, pesticide compns. were prepd. contg. a dispersant comprised of the oxethylated (18 mol ethylene oxide) condensation product of nonylphenol (3 mol) and formaldehyde (2 mol) transformed with 3 mol maleic acid anhydride and 3 mol Na2SO3 as a 35% aq. soln. and a dispersant comprised of a mixt. of Na lignosulfonate [8061-51-6] and montmorillonite [1318-93-0]. Two mL of such concns. in 99 mL water produced a spontaneous dil. suspension which exhibited only traces of sedimentation after 12 h stirring. Such concns. remain stable for 3 mo storage at temps. from -10.degree. to 50.degree.. All constituents are necessary for the enhanced stability, including the polyglycol ether moiety of the half ester.

IT 5138-18-1D, esters with ethoxylated formaldehyde-nonylphenol copolymers, sodium salts  
 RL: BIOL (Biological study)  
 (pesticide suspension concs. stabilization by)

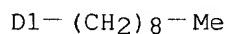
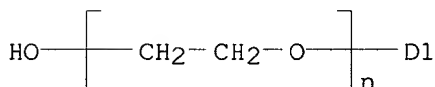
RN 5138-18-1 HCAPLUS  
 CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 24 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1982:64177 HCAPLUS  
 DOCUMENT NUMBER: 96:64177  
 TITLE: Pesticide formulation  
 AUTHOR(S): Anon.  
 CORPORATE SOURCE: USA  
 SOURCE: Research Disclosure (1981), 212, 437  
 CODEN: RSDSBB; ISSN: 0374-4353  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

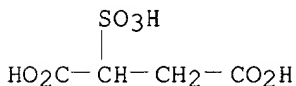
AB Incompatibility between emulsifiable concs. (EC), suspension concs., and wettable powders (WP) is overcome in certain formulations by use of the surfactants R(OCH2CH2)nX M (R = C1-20 alkyl, alkylphenyl; X = SO4-, PO42-, or -OCOCH(SO3)CH2CO2- anion; M = cation; n = 0-20). For example, such surfactants are suitable for a compn. contg. 2,3-dihydro-3,3-dimethylbenzofuran-5-yl ethanesulfonate [68505-69-1] and fluometuron

[2164-17-2].  
 IT 57706-08-8  
 RL: BIOL (Biological study)  
 (pesticidal surfactant)  
 RN 57706-08-8 HCAPLUS  
 CN Poly(oxy-1,2-ethanediyl), .alpha.-(3-carboxy-1-oxosulfopropyl)-.omega.-(nonylphenoxy)-, disodium salt (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 9016-45-9  
 CMF (C2 H4 O)n C15 H24 O  
 CCI IDS, PMS



CM 2

CRN 5138-18-1  
 CMF C4 H6 O7 S



L85 ANSWER 25 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1975:56662 HCAPLUS  
 DOCUMENT NUMBER: 82:56662  
 TITLE: Dispersant mixture and its use in emulsifying combinations of biocidal materials and water-soluble fertilizers  
 INVENTOR(S): Lindner, Paul  
 PATENT ASSIGNEE(S): Witco Chemical Corp.  
 SOURCE: Ger., 8 pp.  
 CODEN: GWXXAW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1567232	A	19720330	DE 1966-W42568	19661012
DE 1567232	B2	19740509		
DE 1567232	C3	19750109		
PRIORITY APPLN. INFO.:			DE 1966-W42568	19661012

AB The dispersion by emulsification of a combined mixt. of pesticide in org. solvent and an aq. soln. of fertilizer is effected by addn. of a dispersing agent consisting of a mixt. of an H2O-sol. or readily dispersed in H2O H3PO4 ester and a surface-active compd. The ester contains at least one compd. from the group of aliph. ethers or thioethers of polyethylene glycols with 10-26 C atoms in the aliph. residue and alkylated phenol polyethyleneglycol ethers in the alkyl residue or residues with 7-24 C atoms, the no. of oxirane groups amounting to 4-30. The surfactant contains a polybasic acid, at least one of which is a sulfonic, sulfuric, or phosphoric acid residue which is sol. in org. solvents.

IT 54612-37-2

RL: BIOL (Biological study)

(dispersing agents for water-sol. fertilizer-pesticide mixts. contg.)

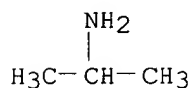
RN 54612-37-2 HCAPLUS

CN 2-Propanamine, compd. with .alpha.-[3-carboxy-1-oxosulfopropyl]-.omega.-(nonylphenoxy)poly(oxy-1,2-ethanediyl) (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 75-31-0

CMF C3 H9 N



CM 2

CRN 54612-36-1

CMF (C2 H4 O)<sub>n</sub> C19 H28 O7 S

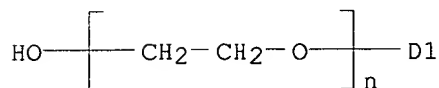
CCI IDS, PMS

CM 3

CRN 9016-45-9

CMF (C2 H4 O)<sub>n</sub> C15 H24 O

CCI IDS, PMS

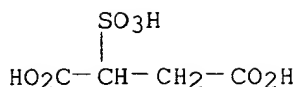


D1-(CH<sub>2</sub>)<sub>8</sub>-Me

CM 4

CRN 5138-18-1

CMF C4 H6 O7 S



L85 ANSWER 26 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1971:63490 HCAPLUS  
 DOCUMENT NUMBER: 74:63490  
 TITLE: Wettable powder pesticide concentrates  
 INVENTOR(S): Ordas, Eugene P.  
 PATENT ASSIGNEE(S): Velsicol Chemical Corp.  
 SOURCE: U.S., 3 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3535423	A	19701020	US 1965-479292	19650812

PRIORITY APPLN. INFO.: US 1965-479292 19650812

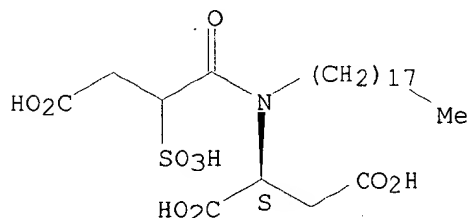
AB Wettable powder pesticide formulations contg. 10-90% H<sub>2</sub>O-insol. pesticide, 10-90% H<sub>2</sub>O-sol. starch or sugar, and 0.1-10% surfactant do not settle or agglomerate when dild. in application equipment.

IT **3401-73-8**  
 RL: BIOL (Biological study)  
 (surfactants, for **pesticide** wettable powder formulations)

RN 3401-73-8 HCAPLUS

CN L-Aspartic acid, N-(3-carboxy-1-oxo-2-sulfopropyl)-N-octadecyl-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

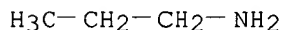


●4 Na

L85 ANSWER 27 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1969:490228 HCAPLUS  
 DOCUMENT NUMBER: 71:90228  
 TITLE: Dispersant compositions and pesticide concentrates  
 INVENTOR(S): Lindner, Paul L.  
 PATENT ASSIGNEE(S): Witco Chemical Co., Inc.  
 SOURCE: Brit., 9 pp.  
 CODEN: BRXXAA  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	GB 1160576		19690806	GB	19660928
	DE 1567230			DE	
AB	A biocidal toxicant-water sol. inorg. salt fertilizer compn. contains as dispersant (1) a phosphoric mono- and (or) diester of a C10-26 aliphatic ether or thio ether of a poly(oxyethylene glycol) contg. 9-15 oxyethylene groups and (2) a dicarboxylic acid compd. contg. a sulfonic acid radical. The aq. soln. contains 20% inorg. salts and the org. phase contains 3-30% by wt. dispersant. The ratio of org. phase to inorg. phase can be 1:1-1:10. A typical toxicant conc. contains (all parts by wt.): Aldrin 18, xylene 72, phosphoric acid ester of 12 mol. ethylene oxide adduct of nonylphenyl (60% mono- 17.5% diester) 1, and half ammonium-half isopropylamine salt of the sulfosuccinic ester of the oleic acid monoisopropanolamine (65% active) 5. Then 2.5 parts of this conc. are mixed with 97.5 parts fertilizer soln. of type 8-24-0 (43.2% aq. diammonium phosphate), Uran 32 (NH4NO3 44.3, urea, 35.4, H2O 20.3), or 4-10-10 ((NH4)3PO4 18.1, urea 1.5, KCL 16.4, and H2O 64). White redispersible emulsions are obtained.				
IT	25496-73-5 25496-74-6 27216-67-7				
	RL: BIOL (Biological study)				
	(as dispersing agent for <b>insecticides</b> in liq. fertilizers)				
RN	25496-73-5 HCAPLUS				
CN	Succinic acid, sulfo-, monoester with N-(2-hydroxyethyl)dodecanamide, compd. with propylamine (1:1) (8CI) (CA INDEX NAME)				
CM	1				
CRN	107-10-8				
CMF	C3 H9 N				

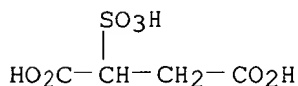


CM 2

CRN 50976-77-7  
 CMF C18 H33 N O8 S  
 CCI IDS

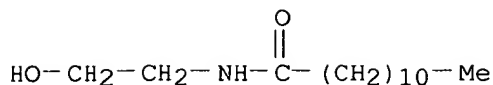
CM 3

CRN 5138-18-1  
 CMF C4 H6 O7 S



CM 4

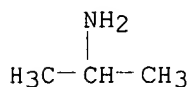
CRN 142-78-9  
 CMF C14 H29 N O2



RN 25496-74-6 HCAPLUS  
 CN Succinic acid, sulfo-, C-ester with N-(2-hydroxyethyl)oleamide, compd.  
 with isopropylamine (1:2) (8CI) (CA INDEX NAME)

CM 1

CRN 75-31-0  
 CMF C3 H9 N

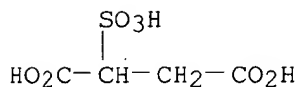


CM 2

CRN 50976-78-8  
 CMF C24 H43 N O8 S  
 CCI IDS

CM 3

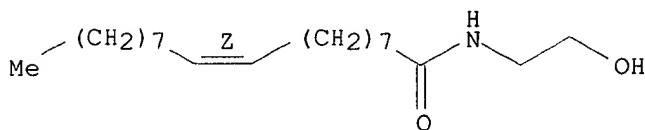
CRN 5138-18-1  
 CMF C4 H6 O7 S



CM 4

CRN 111-58-0  
 CMF C20 H39 N O2

Double bond geometry as shown.

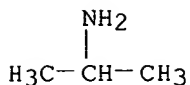


RN 27216-67-7 HCAPLUS  
 CN Butanedioic acid, sulfo-, C-[1-methyl-2-[(1-oxo-9-octadecenyl)amino]ethyl]  
 ester; monoammonium salt, (Z)-, compd. with 2-propanamine (1:1) (9CI) (CA  
 INDEX NAME)

CM 1

CRN 75-31-0  
 CMF C3 H9 N



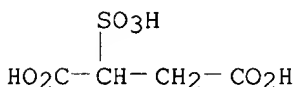


CM 2

CRN 53187-47-6  
CMF C25 H45 N O8 S . H3 N  
CCI IDS

CM 3

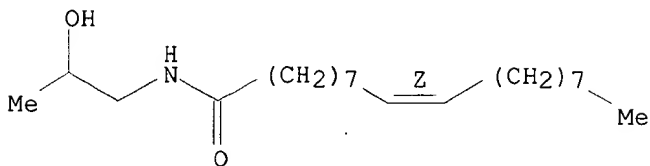
CRN 5138-18-1  
CMF C4 H6 O7 S



CM 4

CRN 111-05-7  
CMF C21 H41 N O2

Double bond geometry as shown.



L85 ANSWER 28 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN  
ACCESSION NUMBER: 1968:495429 HCAPLUS  
DOCUMENT NUMBER: 69:95429  
TITLE: Dispersant compositions and toxicant concentrates  
INVENTOR(S): Lindner, Paul L.  
PATENT ASSIGNEE(S): Witco Chemical Co., Inc.  
SOURCE: Brit., 12 pp.  
CODEN: BRXXAA  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1125610		19680828	GB	19651228

AB Insecticide, soil fumigant, and weed killer concentrates contg. a dispersing agent may be mixed with liquid fertilizer solns. contg. monovalent ions. The dispersing agent comprises at least one each of two types of ingredients (a) and (b). The a ingredients, known to the art, are straight or branched chain alcs. and (or) the adducts of ethylene and

(or) propylene oxides such as the adduct of BuOH and an ethylene propylene oxide mixt. The b ingredients are alkali metal or ammonium salts of sulfopolycarboxylic acid esters or amides contg. a 12 to 18 C alkyl or acyl radical in the mol. and at least one amino, imino, or esterifiable hydroxy group. For example, half ammonium half isopropylamine salt of nonylphenol monoethenoxy sulfosuccinate  $C_9H_{19}C_6H_4OCH_2CH_2O_2CCH(CH_2CO_2NH_4)SO_3H.H_2NCHMe_2$ , and half alkali metal half isopropyl amine salt of sulfosuccinic acid ester of the oleic acid amide of monoisopropylamine,  $C_{17}H_{33}CONHCH_2CHMeO_2CCH(CH_2CO_2NH_4)SO_3H.H_2NCHMe_2$ . A reaction mixt. contg. 50-75% active product may be used. The wt. ratio of b ingredients to a ingredients is preferably 10:1 based on active product. The dispersing agent is preferably 8-12% by wt. of the biocidal concentrate.

IT 19942-96-2 19942-97-3 94159-68-9

RL: BIOL (Biological study)  
(as **pesticide** dispersant)

RN 19942-96-2 HCAPLUS

CN Succinic acid, sulfo-, 1-[2-[2-[2-(nonylphenoxy)ethoxy]ethoxy]ethyl] ester, compd. with isopropylamine (1:2) (8CI) (CA INDEX NAME)

CM 1

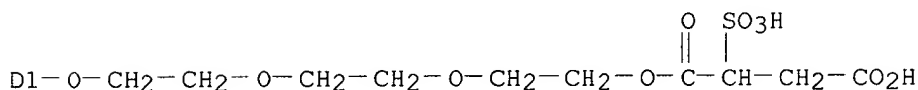
CRN 50853-98-0

CMF C25 H40 O10 S

CCI IDS



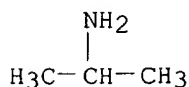
D1--(CH<sub>2</sub>)<sub>8</sub>--Me



CM 2

CRN 75-31-0

CMF C3 H9 N



RN 19942-97-3 HCAPLUS

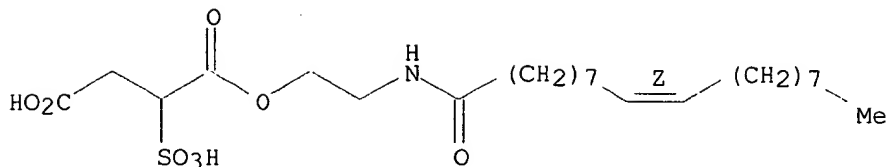
CN Succinic acid, sulfo-, 1-ester with N-(2-hydroxyethyl)oleamide, compd. with isopropylamine (1:2) (8CI) (CA INDEX NAME)

CM 1

CRN 45309-21-5

CMF C24 H43 N O8 S

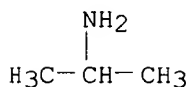
Double bond geometry as shown.



CM 2

CRN 75-31-0

CMF C3 H9 N



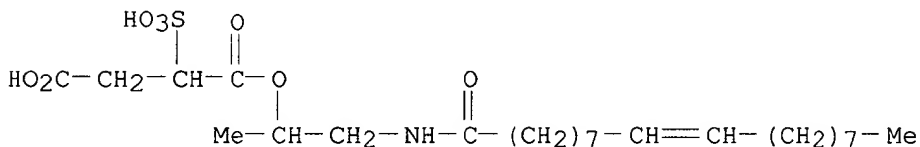
RN 94159-68-9 HCAPLUS

CN Butanedioic acid, sulfo-, 1-[1-methyl-2-[(1-oxo-9-octadecenyl)amino]ethyl] ester, monoammonium salt, (Z)-, compd. with 2-propanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 45309-96-4

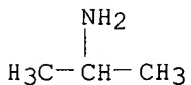
CMF C25 H45 N O8 S



CM 2

CRN 75-31-0

CMF C3 H9 N



L85 ANSWER 29 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1966:71020 HCAPLUS

DOCUMENT NUMBER: 64:71020

ORIGINAL REFERENCE NO.: 64:13330e-g

TITLE: Compositions of dispersants and liquid biocidal toxicants

INVENTOR(S): Lindner, Paul L.

PATENT ASSIGNEE(S): Witco Chemical Co., Inc.

SOURCE: 7 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

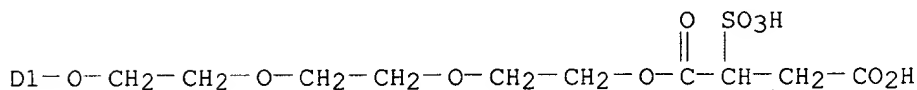
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 3236627		19660222	US	19610320
AB	Satisfactory emulsions of strong aq. liquid fertilizer solns. with H <sub>2</sub> O-insol., org. solvent-sol. biocidal toxicants are produced which remain usable for periods of at least several hrs. A mixt. of an ethylene oxide or propylene oxide condensation product or adduct of a substituted phenol or bisphenol esterified with a sulfopolycarboxylic acid (I), and an amine salt of an alkylbenzenesulfonic acid in which the alkyl radical contains 12-18 C atoms (II), is dissolved in an org. solvent (III) to produce a biocidal toxicant concentrate. Examples of I are C <sub>9</sub> H <sub>19</sub> C <sub>6</sub> H <sub>4</sub> OCH <sub>2</sub> CH <sub>2</sub> O <sub>2</sub> CCH(SO <sub>3</sub> H.H <sub>2</sub> NCHMe <sub>2</sub> )CH <sub>2</sub> CO <sub>2</sub> NH <sub>4</sub> and C <sub>12</sub> H <sub>25</sub> C <sub>6</sub> H <sub>4</sub> (OCH <sub>2</sub> CH <sub>2</sub> )O <sub>2</sub> CCH(SO <sub>3</sub> H.H <sub>2</sub> NCH <sub>2</sub> CHMe <sub>2</sub> )CH <sub>2</sub> CO <sub>2</sub> Na. I is generally water-sol. Examples of II are isopropylamine and the cyclohexamine salt of dodecylsulfonic acid. Examples of III are kerosine, benzene, toluene, and xylene. The total content of I + II is 3-30% by wt. of the biocidal toxicant concentrate, preferably 8-12%. The proportion of I/II is at least 2:1, preferably 4:1 to 10:1. An example is a mixt. of dieldrin (99%) 18, xylene 72, C <sub>9</sub> H <sub>19</sub> C <sub>6</sub> H <sub>4</sub> OCH <sub>2</sub> CH <sub>2</sub> O <sub>2</sub> CCH(SO <sub>3</sub> H.H <sub>2</sub> NCHMe <sub>2</sub> )CO <sub>2</sub> H.H <sub>2</sub> NCHMe <sub>2</sub> (65% active) 9, and isopropylamine dodecylbenzenesulfonate (95% active) 1 parts by wt. In the final emulsion, the aq. phase contg. the strong fertilizer salts is present in large excess, 30-40 parts by wt. to 1 of the fat-sol. phase (the mixt. of I and II dissolved in III).				
IT	19942-96-2, Isopropylamine, compd. with 1-[2-[2-[2-(nonylphenoxy)ethoxy]ethoxy]ethyl] sulfosuccinate (2:1) (as <b>pesticidal</b> dispersing agent)				
RN	19942-96-2 HCAPLUS				
CN	Succinic acid, sulfo-, 1-[2-[2-[2-(nonylphenoxy)ethoxy]ethoxy]ethyl] ester, compd. with isopropylamine (1:2) (8CI) (CA INDEX NAME)				

CM 1

CRN 50853-98-0

CMF C25 H40 O10 S

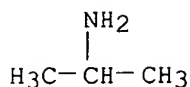
CCI IDS


D1-(CH<sub>2</sub>)<sub>8</sub>-Me


CM 2

CRN 75-31-0

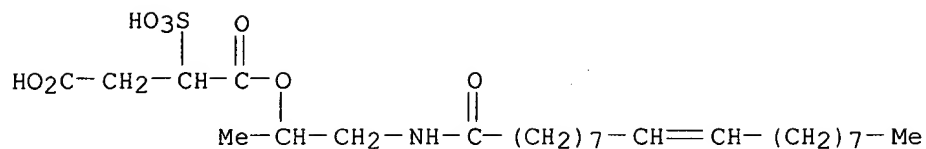
CMF C3 H9 N



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ACCESSION NUMBER: 1966:71019 HCAPLUS  
 DOCUMENT NUMBER: 64:71019  
 ORIGINAL REFERENCE NO.: 64:13330c-e  
 TITLE: Compositions of dispersants and liquid biocidal toxicants  
 INVENTOR(S): Lindner, Paul L.  
 PATENT ASSIGNEE(S): Witco Chemical Co., Inc.  
 SOURCE: 7 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

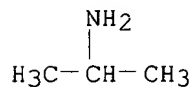
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 3236626		19660222	US	19610320
AB	Satisfactory emulsions of strong aq. liquid fertilizer solutions with H <sub>2</sub> O-insoluble, org. solvent-soluble biocidal toxicants are produced which remain usable for periods of at least several hrs. A mixt. of one of several alc. compds. (I), and one of several salts (II) of sulfopoly-carboxylic acid esters or amides of lipophilic compds. which contain in their mol. an aliphatic hydrocarbon radical having usually 8-18 C atoms is dissolved in an org. solvent (III) to produce a biocidal toxicant concentrate. Examples of I are 2-ethylhexanol, adducts of nonylphenol with 8-15 mols. of ethylene oxide, adducts of tall oil fatty acids with 5-10 mols. of ethylene oxide, and adducts of dodecyl alc. with 5-7 mols. of ethylene oxide. Examples of II are C <sub>9</sub> H <sub>19</sub> C <sub>6</sub> H <sub>4</sub> OCH <sub>2</sub> CH <sub>2</sub> O <sub>2</sub> CCCH(SO <sub>3</sub> H.H <sub>2</sub> NCHMe <sub>2</sub> )CH <sub>2</sub> CO <sub>2</sub> NH <sub>4</sub> and C <sub>17</sub> H <sub>33</sub> CONHCH <sub>2</sub> CH(Me)O <sub>2</sub> CCCH(SO <sub>3</sub> H.H <sub>2</sub> NCHMe <sub>2</sub> )CH <sub>2</sub> CO <sub>2</sub> NH <sub>4</sub> (IV). II is generally water-sol. Examples of III are kerosine, benzene, toluene, and xylene. The total content of I + II is 3-30% by wt. of the biocidal toxicant concentrate, preferably 8-12%. The proportion of II/I is at least 3:1, preferably 10:1. For example, a mixt. of dieldrin (99%) 18, xylene 72, IV(65% active) 9.7, and 2-ethylhexanol 0.3 parts by wt. is illustrative. In the final emulsion, the aq. phase contg. the strong fertilizer salts is present in large excess, 30-40 parts by wt. to 1 of the lipid-sol. phase (the mixt. of I and II dissolved in III).				
IT	7241-25-0, Isopropylamine, compd. with 1-ester of cis-N-(2-hydroxypropyl)-9-octadecenamide with 4-NH <sub>4</sub> sulfosuccinate (2:1) 19942-96-2, Isopropylamine, compd. with 1-[2-[2-(nonylphenoxy)ethoxy]ethoxy]ethyl] sulfosuccinate (2:1) (as <b>pesticidal</b> dispersing agent)				
RN	7241-25-0 HCAPLUS				
CN	Succinic acid, sulfo-, 1-ester with N-(2-hydroxypropyl)-9-octadecenamide, compd. with isopropylamine (1:2) (8CI) (CA INDEX NAME)				
CM	1				
CRN	45309-96-4				
CMF	C25 H45 N O8 S				



CM 2

CRN 75-31-0

CMF C3 H9 N



RN 19942-96-2 HCAPLUS

CN Succinic acid, sulfo-, 1-[2-[2-[2-(nonylphenoxy)ethoxy]ethoxy]ethyl] ester, compd. with isopropylamine (1:2) (8CI) (CA INDEX NAME)

CM 1

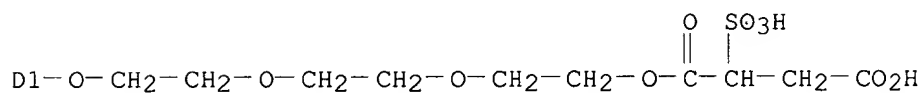
CRN 50853-98-0

CMF C25 H40 O10 S

CCI IDS



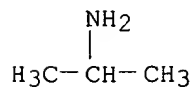
D1-(CH<sub>2</sub>)<sub>8</sub>-Me



CM 2

CRN 75-31-0

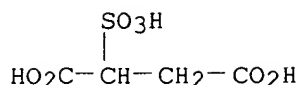
CMF C3 H9 N



IT 5138-18-1, Succinic acid, sulfo-  
(derivs.; compds. with iso-PrNH<sub>2</sub>, cis-, as **pesticidal**  
dispersing agent)

RN 5138-18-1 HCAPLUS

CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



(esters, with sorbitan monooleate polyoxyethylene deriv., compd. with isopPrNH<sub>2</sub>, as **pesticidal** dispersing agent

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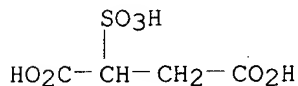
ACCESSION NUMBER: 1960:133258 HCAPLUS  
DOCUMENT NUMBER: 54:133258  
ORIGINAL REFERENCE NO.: 54:25527e-g  
TITLE: Influence of surfactants on activity of Selinon  
AUTHOR(S): Hirota, Koki; Ikeda, Yasunosuke  
CORPORATE SOURCE: Sankyo Co., Tokyo  
SOURCE: Noyaku Seisan Gijutsu (1960), No. 1, 19-22  
CODEN: NSGIAJ; ISSN: 0369-5654  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB A study was made on the effect of surfactants on the acaricidal and ovicidal activities of Selinon (NH<sub>4</sub> salt of 2,4-dinitro-o-cresol) (I) against Panonychus citri by the dipping method. Octyl, n-decyl, dodecyl, hexadecyl, tetradecyl, and octadecyl ethers of deca(ethylene glycol), Tween 60, Tween 20, Span 85, Span 40, and Na salts of di-Bu diisoamyl, bis(2-ethylhexyl), diisooctyl, didecyl, didodecyl, di-9-octadecenyl sulfosuccinates were tested. Addn. of the surfactants generally enhanced I activities. Max. enhancement of the acaricidal and ovicidal activities was obtained by the addn. of surfactants with HLB values of 7-9 and <6 calcd. by Oda's formula (Teijin Times 22, No. 9, 10(1952)).

IT 20526-58-3, Succinic acid, sulfo-, Na salt  
(esters, effect on **pesticidal** activity of Selinon)

RN 20526-58-3 HCAPLUS

CN Butanedioic acid, sulfo-, sodium salt (9CI) (CA INDEX NAME)



●x Na

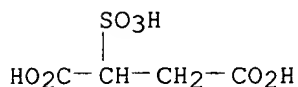
L85 ANSWER 32 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1960:76415 HCAPLUS  
DOCUMENT NUMBER: 54:76415  
ORIGINAL REFERENCE NO.: 54:14561b-d  
TITLE: Agricultural sprays. The wetting problem, with particular reference to systemic insecticides  
AUTHOR(S): Phillips, M. A.  
SOURCE: Pest Technology (1959), 2(No. 2), 27-30  
CODEN: PTNGA9; ISSN: 0370-2227  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB Com. wetters can be divided into 2 main classes, anionic or nonionic. The anionics, sulfonated alcs. of the Na dodecyl sulfate and Na alkyl sulfosuccinates, are not recommended for systemic insecticides. Benzoyl-p-hydroxydiphenylpolyglycol ether condensate and alkylaryl polyglycol ether condensate, both nonionic, are recommended with

root-crop insecticide formulations, and particularly for use with systemic insecticide compns.

IT 5138-18-1, Succinic acid, sulfo-  
 (alkyl deriv., as wetting agent for insecticides)  
 RN 5138-18-1 HCAPLUS  
 CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



L85 ANSWER 33 OF 33 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1952:27821 HCAPLUS  
 DOCUMENT NUMBER: 46:27821  
 ORIGINAL REFERENCE NO.: 46:4720h-i,4721a-d  
 TITLE: [Floriculture] pest control 1951-outlook for 1952  
 AUTHOR(S): Blauvelt, W. E.  
 CORPORATE SOURCE: Cornell Univ., Ithaca, NY  
 SOURCE: N.Y. State Flower Growers Bull. (1952), 77, 9-10  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

AB Parathion is the most generally effective insecticide; the dithio or sulfa TEPP aerosols, although effective against fewer pests and requiring more frequent treatments, are popular and widely used, with less plant injury. The parathion and dithio smoke generators are very popular for small greenhouses, as they can be safely used without gas masks and protective clothing; however, more frequent application is necessary. Mite resistance has developed in roses. The K6451 (Ovotran) aerosol has continued to give good control, but some plant injury developed, especially in winter or when S had been used. Considerable promise from the application of wettable K6451 powder to steam pipes has been obtained. Aramite wettable powder has given excellent control with little or no plant injury; it is effective up to 7 weeks. OMPA and Systox aerosols have given satisfactory control in many greenhouses, but require frequent application. OMPA as a spray was effective in many com. trials. Soft brown scale has been completely eliminated by the use of dithio aerosol. Thripinjury has been effectively prevented by the use of parathion, lindane, and DDT. The garden centipede or symphlid has been controlled by the application of lindane spray to the soil surface, and watered in. Some pests can only be controlled by parathion, so it should be used periodically. Outdoor and clothhouse pompom and larger chrysanthemums should be sprayed with a combination parathion-DDT spray, with the addn. of ferbam as needed. Lindane is frequently used in place of parathion in warm weather, but does not control spider mite or leaf nematode, and is more expensive. Slugs are controlled by soil applications of CuSO4-hydrated lime dust, or by a 10% metaldehyde dust. Exptl. soil treatments with Systox and OMPA gave good control of aphids and spider mite for 2-3 months from single applications. The corresponding aerosols gave good results but must be applied more frequently. Parathion aerosols appear to be best for general pest control on carnations; for resistant mite control treatments recommended for roses apply. Most of the pest problems on pot plants are taken care of by the use of parathion or dithio aerosols. Cyclamen mite has been controlled by OMPA and parathion; Na2SeO4 soil treatment is still used in some cases. Pest control on orchids is similar to that on the other plants.

IT 5138-18-1, Succinic acid, sulfo-  
 (esters, as pesticides in floriculture)  
 RN 5138-18-1 HCAPLUS  
 CN Butanedioic acid, sulfo- (9CI) (CA INDEX NAME)



